

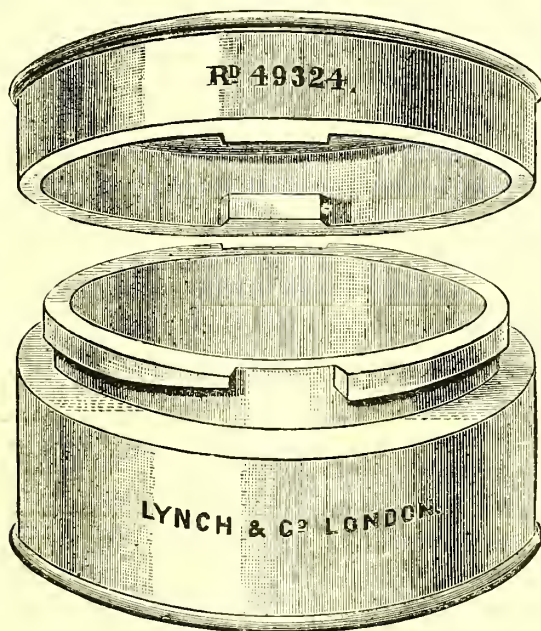


LYNCH'S

NEW



LOCK-LID COVERED POTS.



REGISTERED.

These Pots obviate an admitted defect in all those hitherto used for Cold Cream, Bears' Grease, Ointments, &c., &c. They are made in Nine Sizes, at prices subjoined, and their great superiority for the use of persons travelling will commend them for general adoption.

Size	1 & 2 drms.	$\frac{1}{2}$ -oz.	$\frac{3}{4}$ oz.	1-oz.	$1\frac{1}{2}$ -oz.	2-oz.	3-oz.	4-oz.	6-oz.
Per gross	21/-	22/-	23/6	25/-	28/-	31/6	39/-	45/-	60/-
Less usual Discount.									

SOLE MANUFACTURERS:

LYNCH & CO.,

ALDERSGATE STREET, LONDON; AND MELBOURNE.

THE LONDON HOSPITAL AND MEDICAL COLLEGE.

HOSPITAL STAFF.

CONSULTING PHYSICIAN—Dr. Ramskill.

CONSULTING SURGEONS—Mr. Curling, F.R.S., Mr. Jonathan Hutchinson, F.R.S.

PHYSICIANS—Sir Andrew Clark, Bart., F.R.S., Dr. Langdon Down, Dr. Hughlings Jackson, F.R.S., Dr. Sutton, Dr. Fenwick, Dr. Stephen Mackenzie, Dr. Sansom, Dr. Charlewood Turner, Dr. Gilbert Smith.

ASSISTANT-PHYSICIANS—Dr. Warner, Dr. Ralfe.

SURGEONS—Mr. Couper, Mr. Rivington, Mr. Waren Tay, Mr. McCarthy, Mr. Frederick Treves.

ASSISTANT-SURGEONS—Mr. Reeves, Mr. C. Mansell Moullin, Mr. Hurry Fenwick, Mr. F. S. Eve.

OBSTETRIC PHYSICIAN—Dr. Herman.

ASSISTANT OBSTETRIC PHYSICIAN—Dr. Lewers.

OPHTHALMIC SURGEONS—Mr. Waren Tay, Mr. F. S. Eve.

PHYSICIAN TO THE SKIN DEPARTMENT—Dr. Stepton Mackenzie.

AURAL SURGEONS—Dr. Edwd. Woakes, Mr. T. Mark Hovell.

SURGEON-DENTIST—Mr. Barrett.

LECTURERS.

Medicine—Dr. Stephen Mackenzie.

Surgery—Mr. Rivington.

Operative Surgery—Mr. Rivington.

Practical Surgery—Mr. Reeves.

Anatomy—Mr. Fredk. Treves.

Practical Anatomy—Mr. Mansell Moullin.

Physiology and Practical Histology—Mr. McCarthy.

Chemistry—Dr. C. Meymott Tidy.

Chemical Physics—Mr. F. J. M. Page.

Comparative Anatomy—Mr. C. Mansell Moullin.

Pathology—Dr. Sutton.

Pathological Histology—Mr. Eve.

Midwifery—Dr. Herman.

Toxicology—Dr. C. Meymott Tidy.

Botany—Dr. F. Warner.

Medical Jurisprudence—Dr. Sansom.

Practical Chemistry—Mr. F. J. M. Page.

Materia Medica—Dr. Prosser James.

Diseases of the Eye—Mr. Waren Tay.

Diseases of the Ear—Dr. Edwd. Woakes.

Diseases of the Throat—Mr. T. Mark Hovell.

Anatomy and Pathology of the Teeth—Mr. Barrett.

As Emeritus Professor of Surgery, Mr. HUTCHINSON will give in the Winter and Summer Sessions short Courses of Lectures in Clinical Surgery, consisting of Six Lectures each. The Special Subjects and the dates will be announced in due course.

The SESSION 1886-87 will commence on Friday, October 1st, 1886; by that date the New College Buildings will be ready for occupation. The very extensive additions that have been made to the School Premises will afford complete provision for the teaching of all branches of Medical Science, the accommodation provided being more than double that which was provided in the Old Buildings. An inaugural ceremony will take place, of which due notice will be given.

Fee for Lectures and Hospital Practice, 90 guineas in one sum, or 100 guineas by three instalments.

The Hospital contains nearly 800 beds. Number of In-patients during 1885 was 8,732; Out-patients, 67,942.

THE RESIDENT AND OTHER HOSPITAL APPOINTMENTS are free to full Students. The Resident Appointments consist of five House-Physicians, five House-Surgeons, one Accoucheurship, and one Receiving Room Officer. Four Dressers and four Maternity Assistants also reside in the Hospital. The holders of all the Resident Appointments are provided with rooms and board entirely free of expense.

TWO ENTRANCE SCIENCE SCHOLARSHIPS, value £60 and £40, and TWO BUXTON SCHOLARSHIPS, value £30 and £20, will be offered for competition at the end of September to new Students.

The Letheby Prize, value £30, for proficiency in Chemistry.

A Scholarship, value £20, in Human Anatomy and Physiology, to first year's Students.

A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, to second year's Students.

A Scholarship, value £20, in Clinical Medicine.

A Scholarship, value £20, in Clinical Surgery.

A Scholarship, value £20, in Clinical Obstetrics.

A Duckworth Nelson Prize, value £10 (biennial), in Clinical Medicine and Surgery.

The Hutchinson Prize, value £35 (triennial), in Clinical Surgery.

Prizes, value £60, to Dressers of Out-patients in Minor Surgery.

Special Classes for the Preliminary Scientific and Intermediate M.B. Examinations of the University of London, and for the Primary and Pass Examinations for the Fellowship of the Royal College of Surgeons of England, are held throughout the year.

Special entries for Medical and Surgical Practice are made.

The London Hospital is now in direct communication by Rail and Tram with all parts of the Metropolis, and the Metropolitan, Metropolitan District, East London, and South-Eastern Railways have stations within a minute's walk of the Hospital and College.

For Prospectus and particulars apply, personally or by letter, to

Mile End, E.

MUNRO SCOTT, Warden.

SPECIAL NOTICE TO MINOR STUDENTS.

The First Two Lectures of the REVISED and ENLARGED edition of

WILLS' "UNIVERSAL POSTAL SYSTEM"

(MINOR LECTURES).

In accordance with the New Pharmacopœia, 1885, Were issued on Monday, April 5, 1886.

The Course will consist of 100 Lectures all entirely re-written. Each lecture is composed of four 8vo. pages of printed matter, and embrace the following subjects:—

Dispensing	...	6 lectures with numerous exercises.
Prescription Reading	...	4 lectures, with a large collection of Autograph prescriptions, with translations.
Chemistry (Theoretical)	...	30 lectures.
Materia Medica	...	10 "
Botany (Structural)	...	15 "
Botany (Practical)	...	10 "
Pharmacy	...	10 "
Chemical Physics	...	5 "
Examination Papers	...	10 "

In order to thoroughly prepare those students who avail themselves of the Postal System of preparation for the Major and Minor Examinations of the Pharmaceutical Society, we circulate amongst our pupils the parts of Bentley and Trimen's Medical Plants.

Fee for the complete course, £1 1s. 0d.

For further particulars apply to

Messrs. WILLS & WOOTTON,

WESTMINSTER COLLEGE,

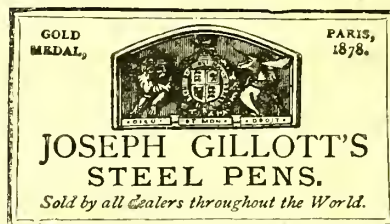
Trinity Square, Borough, London, S.E.

THE LONDON HOMOEOPATHIC HOSPITAL AND MEDICAL SCHOOL,

GREAT ORMOND STREET.

A NEW WARD, unoccupied for want of funds, is much needed for Male Patients, and will be opened as soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accouchement cases, the latter specially Certificated.

G. A. CROSS, Secretary.



JUST PUBLISHED. With Portrait. Cr. 8vo. Price, 7s. 6d. The Life and Labours of John Mercer, F.R.S., F.C.S., &c.,

THE SELF-TAUGHT CHEMICAL PHILOSOPHER;

Including numerous Recipes used at the Oakenshaw Calico Print Works.

By EDWARD A. PARNELL, F.C.S., Author of "Applied Chemistry," &c.

LONDON: LONGMANS, GREEN & CO.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY*Of the Pharmaceutical Society of Great Britain.*Chemistry, Prof. DUNSTAN, F.C.S., &c. Botany and Materia Medica, Prof. BENTLEY, F.L.S., &c.
Practical Chemistry, Prof. ATFIELD, F.R.S., &c. Practical Pharmacy, Mr. JOSEPH INCE, F.L.S., &c.**FORTY-FIFTH SESSION, 1886-87.***Application for admission to the School, for Prospectuses, or for further information may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.***THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,**

173 MARYLEBONE ROAD, N.W.

DIRECTOR—Mr. JOHN WOODLAND, F.L.S., F.C.S., &c. DEMONSTRATOR—Mr. J. F. BURNETT, F.C.S., &c.

Day and Evening Classes are held for Minor and Major Students, also Morning Classes for Preliminary Students. A short Course of Lectures and Classes for advanced Minor Students who intend entering at the April Examination will be commenced at the end of February, fee 6 guineas. For Prospectus containing full particulars, apply to Mr. JOHN WOODLAND.

THE LIVERPOOL SCHOOL OF PHARMACY,

36 OXFORD STREET, LIVERPOOL.

Principal—J. S. WARD, M.P.S., Ph. Ch. (Prize Medallist and South Kensington Prizeman).

Assisted by Messrs. J. T. HORNBLLOWER and G. R. LAWRENCE for the Minor pupils, and Mr. PENDLEBURY for the Preliminary pupils.

The curriculum of this School is approved of and recommended by the Council of the Liverpool Chemists' Association.

PROSPECTUS, WITH TERMS, ETC., SENT FREE ON APPLICATION.

LIQ. HUMULI CO. CONC.,

1 to 15 AQUA,

FOR TONIC BITTERS

(A FACSIMILE).

*Sample and quotation free on receipt of three penny stamps.***J. HINTON KENDALL, Chemist, Blyth****THEEROLENE SANITARY DISINFECTANT**

AND

FLUID SHEEP DIP.

NON-POISONOUS.

THE BEST AND MOST RELIABLE, AND THEREFORE THE CHEAPEST. ANTI-FRICTION GREASE, OILS, PAINTS, TAR, ROSIN, &c. PITCH, in Boxes and Casks, from 1 lb. to 4 cwt.

*Prices and samples on application.***ELVIN BROTHERS, HULL.**

TO LET.

PERFUMES, No. 30.

FIFTY KINDS.

9s. for 20 ozs., Carriage Paid.

Samples of any kind for 2 stamps.

When buying, compare my Perfumes with other makers', and buy the best.

GEORGE DURRANT, HERTFORD.*London Depot—Messrs. BAISS BROS. & CO.*SILVER MEDAL
I.H.E. 1884.THE ONLY
MEDAL AWARDED
FOR THIS
SPECIALITY.**CHLORIDE OF LIME!**

IN AIRTIGHT WATERPROOF INVENTORS AND MANUFACTURERS NATIONAL CHEMICAL CO., LONDON.

THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.

KEPT IN STOCK BY ALL WHOLESALE DRUGGISTS &c.
SEE THEIR PRICE LISTS.SILVER MEDAL
I.H.E. 1884.BEWARE
OF OTHER
CALLED AIRTIGHT
PACKAGES**HOLMAN LIVER PAD CO.'S
REMEDIES.**

(Trade Mark.)

PRICE LIST.

	Retail	Per doz.
Holman's Liver and Stomach Pad (regular size)	10/	90/
Holman's Liver and Stomach Pad (special size)	15/	135/
Holman's Infant Pad (for children's diseases)	7/6	67/6
Holman's Spleen Pad (for inveterate cases)	35/	315/
Holman's Kidney Pad (for the kidneys & bladder)	10/	90/
Holman's Pectoral Pad (for lung diseases)	15/	135/
Holman's Abdominal Pad (for female complaints)	42/	378/
Holman's Absorbent Body Plasters	2/6	23/6
Holman's Absorbent Foot Plasters, per pair	2/6	22/6
Absorption Salt (for medicinal baths)	1/	7/6
Tablets (for constipation)	5/	45/

MADE AND PREPARED ONLY BY

**THE HOLMAN LIVER PAD CO.,
NEW YORK, U.S.A.**

Trade supplied by JOHN W. RICHARDS, 46 Holborn Viaduct, London, E.C.

**COMPOUND
GLYCERINE LINCTUS.**REGISTERED
TRADE MARK **KOF'KÜR** (COUGH CURE)
No. 40,927.

LABEL COPYRIGHT, STRICTLY PROTECTED.

Cure for Coughs, Bronchitis, Asthma, Influenza, Hay Fever, &c., &c. Invaluable to Professional Speakers and Singers.

Prepared only by the Inventor and Sole Proprietor,

E. R. LEAROYD, Chemist, &c. (exam.) Sheffield, Eng.

In Bottles at 1/- and 2/- each only; of all Chemists and Wholesale Dealers.

TO IMITATE THE ABOVE IS FELONY.

N.B.—The great success of this preparation, owing to its remarkable efficacy (once sold it creates a demand for itself), has, of course, produced imitators, but vendors are WARNED that proceedings against such will be taken from time to time as may be considered desirable.

Export Agents—AYRTON & SAUNDERS, 149 Duke St., Liverpool.

DR. G. H. JONES, F.R.S.L., &c , SURGEON-DENTIST,

57 GREAT RUSSELL STREET, LONDON
(Facing British Museum entrance),

Will forward his New 64-page Pamphlet, entitled "PAINLESS AND PERFECT DENTISTRY," which contains a List of the Diplomas, Gold and Silver Medals, and other Awards obtained at the Great International Exhibitions, to any part of the world, gratis and post free. *Agents Wanted.*

PETROLEUM JELLY,

EQUAL TO AND CHEAPER THAN VASELINE.
SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.
GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.
Samples and Prices on application.
GRINDLEY & CO., POPLAR, LONDON, E.

PURE PRECIPITATED CHALK.

Cheapest Sellers in the Market.

Chemicals, Drugs, and Oils at lowest market rates.

APPLY TO

AUG. LEVERMORE & CO.,
8 LIME STREET, LONDON, E.C.



TYPKE & KING,

110 CANNON STREET, E.C.

Manufactories—MITCHAM & RAINHAM.

Pure Acids—Valerianic Acid and all Valerianates. Antimony Golden Sulphuret, Antim. Crocus Lump, and Powder. Essences of Pear and Pineapple. Potassium Cyanide. Nitrate of Ammonia, crystal and granulated. Potass. Sulphid. Iron Perchloride, solid and solution. Hypophosphites of Lime, Manganese, Soda, Potash, &c.





SPECIAL
PRICE LIST
ON
APPLICATION.



FLY
TRAP.



BOTTLES, VIALS,
AND
CHEMISTS'
CHINA WARE.
LISTS FREE.

M. DAVIS & CO., GLASS BLOWERS, LONDON DOCKS, LONDON, E

HARSTON & CO., LEEDS.

GINGER ALE

From PURE JAMAICA GINGER ROOT.
SELTZER, POTASS, LITHIA, SODA WATER, LEMONADE,
FOR HOME OR EXPORT.

"LA BRILLANTINE"

METALLIC POWDER (REGISTERED)

Is the best, cheapest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the Life, Horse, and Dragoon Guards, the Fire Brigades, &c., &c. Sold everywhere in 6d. and 1s. Boxes.

Proprietors: J. F. BAUMGARTNER & CO.,
22 Newman Street, Oxford Street, LONDON, W.

POWELL & BARSTOW,

5 Albion Place, Blackfriars Bridge, London, S.E.,
Late W. HURLSTONE & CO., Blackfriars Road and Vine Street, S.E.,
MANUFACTURERS TO THE WHOLESALE TRADE OF

ELASTIC GUM SURGICAL INSTRUMENTS.

WORKS, LAMBETH. ESTABLISHED 1830.

FRED^K FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES: Glycerine—Gum Arabic—Gum
Tragacanth—Pure Beeswax—Honey—Vanilloes.

LINT.

THE

LIVERPOOL PATENT LINT CO.

MARK STREET MILLS,
NETHERFIELD ROAD NORTH,
LIVERPOOL.

See Advertisement.



E. MEINERTZHAGEN,

9 MINCING LANE, LONDON, E.C.,

Importer of SARSAPARILLA & IPECACUANHA.

ALL DRUGS AND GUMS SORTED AND PACKED.



ASSAY FURNACES, &c. THE MORGAN CRUCIBLE CO.,

Sole Manufacturers of
MORGAN'S and SALAMANDER CRUCIBLES,
BATTERSEA, LONDON, S.W.
All kinds of Crucibles in Plumbago, Clay, &c.,
Single and in Nests.
Muffles, Portable Assay and Melting Furnaces, &c.

Read "Assay Notes" in C. AND D., April 15, 1885.

TO LET.

E. BRAMWELL & SON, ST. HELENS, LANCASHIRE.

EPSOM SALTS (PURE).
CREAM CAUSTIC SODA.
SULPHITE OF SODA

(PHOTOGRAPHIC AND COMMERCIAL).

GLAUBER SALTS.

PREPARED SILVERY WHITE GUTTA PERCHA ENAMEL
FOR STOPPING DECAYED TEETH.

P. A. STEVENS,

(LATE OF HOXTON, N.)

72 MANSFIELD ROAD
HAVERSTOCK HILL, N.W.,

SOLE PROPRIETOR AND MAKER OF THE

REGISTERED—NO 3745.
P. A. & S. can supply the above to Wholesale Houses in Sheet or Sticks, in any quantity,
with their name stamped upon each piece. Price List & Samples sent Post Free.



To all those of either sex who have lost or are losing
their Hair,

"CRINIDONE,"

THE HAIR PRODUCER, WILL PROVE A BOON.

When out in handfuls comes your Hair,
When shining bright-bald spots appear,
Don't sigh, nor cry, nor moan, nor groan,
But get a pot of "CRINIDONE."

AGENTS:—S. PIGOTT, Chemist, Lower Broughton;
HARGREAVES & SON, Chemists, Preston.

Sole Manufacturer—W. B. CAPPER,
21 Oxford Street, C.-on-M., MANCHESTER.



TRADE MARK REGISTERED

Pattison's
30
VARIETIES
AT FROM
2/-
PER DOZEN PAIRS.
Lists on application.

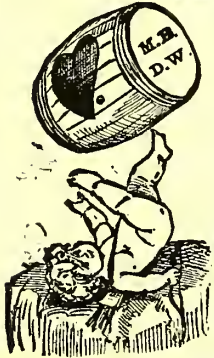
Bath Gloves

ORIGINAL MANUFACTURER, [1]
GEORGE PATTISON, 139 St. John St. Road, LONDON, E.C.

The Mormon Elder's DAMIANA WAFERS.

The most Powerful
INVIGORANT
Ever Produced.

Permanently Restores those
Weakened by Early Indiscretions.
Imparts Youthful Vigor. Re-
stores Vitality. Strengthens and
Invigoretes the BRAIN & NERVES.
A Positive cure for *IMPOTENCY*
& Nervous Debility. Prompt, Safe
and Sure. 4s per box, 6 for 20s.
mailed to any address in the World
on receipt of price. *Send for Circular*



ADDRESS
F. B. CROUCH,
202 Grand St., New York.
European Agents—THOMPSON, MILLARD & CO., Curtain Road,
London, E.C.

REDUCED PRICES FOR MEDICAL BOTTLES

Superior Quality, Plain and Grad., any Shape.

3 oz. & 4 oz.	6 oz. & 8 oz.	10 oz. & 12 oz.
6/	7/	10/9 per gross.

Panelled, Pale Green, Best Quality.

1½ oz. & 2 oz.	3 oz. & 4 oz.	6 oz. & 8 oz.	10 oz. & 12 oz.
6/8	7/3	8/3	12/ per gross.

N.B.—Not less than 6 gross assorted sizes sold at the above prices.

Equally low quotations for FLINT Bottles of all kinds.

THE NEW "QUININE" TINTED MEDICALS.

BOTTLES MADE FOR "SPECIALITIES."

Flint Vials, Moulded, Good Quality.

1 dr.	2 dr.	½ oz.	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.
2/5	2/8	2/10	3/3	3/11	4/6	6/	7/ per grs.

Not less than 10 grs. assorted sizes at these prices.

"IMPROVED" BENT

FEEDING BOTTLES

With 7-inch black fittings, for grs. 27/; and lettered with any name
and design, free for 5 grs. orders.

Glass Screw "Feeders," with 7-in. Black Fittings, for grs., 33/.

All "Sundries" equally cheap, and guaranteed of a superior quality.

T. W. SIMCOCK,
17 Guildford St., LEEDS.

A1 in Quality.
A1 in Style and "Get-
up."
A1 in Therapeutical
results.
So be sure to ask for
A1 Brand.

MENTHOL CONES.

MENTHOL versus HOT WEATHER.

A Show-case, fitted with dummies, price 2s., given away with a 6 dozen order.
Write for further particulars.

J. G. SHIRLEY, Proprietor, A1 Brand MENTHOL, 30 Paternoster Square, E.C.

Write to-day for
NEW PRICE LIST
(sent post free on appli-
cation).
This will be found worthy
the attention of all de-
siring of increasing their
trade.

GOVERNMENT DISINFECTANT

CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & ½ Packages.
CARBOLIC POWDER (PINK) in TINS 6d & 1/- **CARBOLIC SOAP** No 1 & No 2
CARBOLIC FLUID in 6d 1/6 & 1/6 STOPPED BOTTLES **CARBOLIC & GLYCERINE SOAP** in 1/4lb & 1/2lb TABS
FREE FROM POISON **THE GOVERNMENT SANITARY CO.,** **TO BE HAD FROM ALL**
AGREEABLE IN SMELL. **LONDON E.** **WHOLESALE DRUGGISTS.**

THE SCOUR
IN LAMBS CURED
BY
THE DEVONSHIRE
COMPOUND.

A distinct prepara-
tion from the Devon-
shire Oils.

In Bottles, 2/-

ESTABLISHED 1830 **CORNER'S PINE'S** SOLD EVERYWHERE

FOR CATTLE
HORSES
COWS & CALVES
SHEEP & LAMBS
DOGS &c
Both for Outward and Inward Use.

THE GREAT REMEDY FOR ACCIDENTS AND ANIMAL AILMENTS. Supplied by all Wholesale Houses.

DEVONSHIRE OILS PRICE 2/-

MANUFACTORY WELLINGTON, SOM.

CORNER'S FAMILY EMBROCATION
CURES—
Sore Throats,
Colds and Pains in
the Chest,
Lumbago,
Scalds, Burns,
Chilblains, Sprains,
&c., &c.
1s. 1½d.

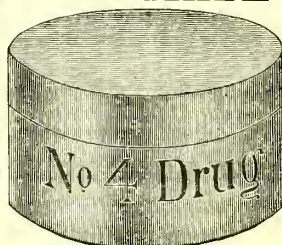
ESTES' AMERICAN DRUGGISTS' & CHEMISTS' TURNED WOODEN BOXES.

PILL, POWDER, AND SALVE BOXES.
FINELY-FINISHED FACE AND TOOTH POWDER BOXES.
BOXES FOR SENDING VIALS BY PARCEL POST.

Boxes for Proprietary Articles.

ESTES' GREASE-PROOF TURNED WOODEN BOXES

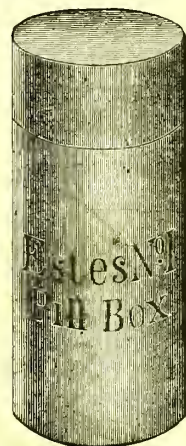
BOXES OF EVERY STYLE & FINISH
MADE TO ORDER.



*Boxes equal to English Manu-
facture at lower prices.*

USE WOODEN BOXES

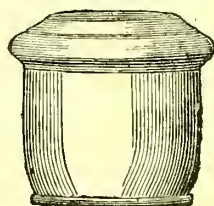
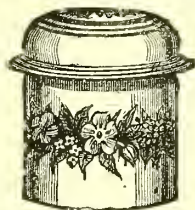
In place of Paper or Tin.



SOLE AGENTS FOR
GREAT BRITAIN.

KILNER BROS., KING'S CROSS, LONDON, N.

ESTABLISHED 1855.



J. ROGERS & CO., MEDICAL BOX TURNERS,

1, 2, 3, & 47 CARTER STREET, WALWORTH, LONDON,

Turners of every description of Tooth Powder, Plate Powder, Pill and Puff Boxes, used by Chemists, Perfumers, &c.
All Boxes of our make are finely finished. Patentees and Manufacturers of the

SILICATED GREASE PROOF BOXES

These Boxes are turned out of Willow and Silicated inside, rendering them quite grease proof, and will be found very convenient to send by Post. They are very light, being one-sixth the weight of covered pots. They are not breakable. The lids fit quite air-tight. They will stand in any climate. They are cheap.

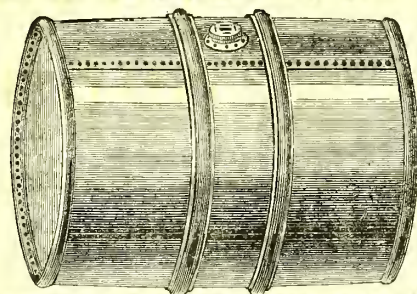
SPECIAL NOTICE.

Our Boxes being made of White English Willow will not injure the most delicate preparations, and will be found quite free from the objectionable oily smell of some Boxes now being sold.

BEFORE ORDERING TURNED WOOD BOXES PLEASE SEE OUR SAMPLES AND PRICES.

B. NOAKES & CO.,

MANUFACTURERS OF
Metallic Casks, Drums, & Kegs
ENAMELLED, PLAIN, AND DECORATED
TIN CANISTERS AND BOXES,
FOR PACKING CHEMISTS' AND DRUGGISTS'
SUNDRIES.



These large Iron Casks, similar to sketch, can be handled with equal facility to wooden barrels, and, owing to their strength and durability, can be used over and over again for an indefinite period. They are perfectly liquid tight, being tested at a very high air pressure, and, unlike wood, do not absorb any of the contents. They are all fitted with interchangeable screw bungs, and can also be fitted with screw plug in head, for draw-off tap.

They are specially adapted for all kinds of Chemical Products, Sulphuric Acid, Glycerine, Spirits, Oils, Turpentine, Petroleum, Benzoline, Varnishes, Tar, Naphtha, Mineral Extracts, and Inflammable Liquids of every description.

We are making them in three qualities, "Black Iron," "Lead Coated," and "Tinned."

ENAMELLED SHOW CARDS.

IRON BARRELS,
CAPACITY 40 TO 120 GALLONS
AS PER ILLUSTRATION.

Cable and Telegraphic Address—
"NOAKES LONDON."

Offices and Works: 142 SPA ROAD, BERMONDSEY, LONDON, S.E.

PRICE LIST ON APPLICATION.



Boxes ready made up, or the Patent Tops only (ready for making up), are supplied.

SELF-OPENING TIN BOX COMPANY
(GRIFFIN'S PATENT).

Albion Tin Works, York Road, King's Cross, London, N.

THE NEW TIN BOXES for all kinds of hermetically Sealed Preserved Foods, DRUGS and CHEMICALS.

THE NEW TIN BOXES are as cheap as the ordinary Boxes, require no soldering up, and can be opened with a penny piece.

THE NEW TIN BOXES are being adopted by the largest Food-preserving Houses and CHEMISTS, to whom references can be given.

THE NEW TIN BOXES are also perfect for Tea and Coffee Canisters, Biscuit Boxes, Confectionery, Paints, Oils, Varnishes, Soaps, &c.

THE NEW TIN BOXES are described by the *Times*, *Standard*, *Chronicle*, *Illustrated News*, *Engineer*, *Grocer*, *Oil and Colourman*, and *Press* generally, as the "neatest and most elegant invention ever made."

Prize Medal Awarded, International Inventions Exhibition, London, 1885

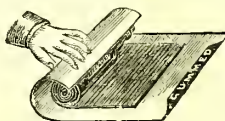
CORRUGATED PAPER,

FOR PACKING BOTTLES AND FRAGILE ARTICLES.

Is lighter and more secure than anything yet introduced as a Parcel Post Wrapping. For transmission of filled bottles—for Quarts, roll the material three or four times tightly, and for Pints two or three times. Very small bottles require only single wrapping.

The CORRUGATED PAPER should extend half an inch beyond the ends of the bottle.

Roll tightly and fold in the ends. The elasticity of the material will keep the bottle rigidly in its place.



SOLD IN ROLLS,

250 feet long, 26 inches wide	20/
100 " " " " " " " " " " " "	10/
50 " " " " " " " " " " " "	6/
25 " " " " " " " " " " " "	post paid 4/6

The Material can be cut to any size with an ordinary pair of scissors.

THOMPSON & NORRIS MANUFACTURING COMPANY, LIM.,

ARLINGTON STREET WORKS, ISLINGTON, LONDON, N.

BROOKLYN, N.Y., U.S.A.
10 to 34 Prince Street.

ST. DENIS, PARIS.
205 Avenue de Paris.

BOSTON, MASS., U.S.A.
116 to 120 Fulton Street.

PARCEL POST WRAPPING.

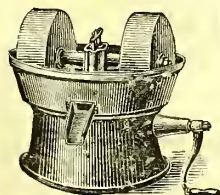
PARCEL POST WRAPPING.

AUSTIN & CO.,

PATENTEES & MANUFACTURERS OF ROUND CARDBOARD AND OTHER BOXES,
BRITISH AND FOREIGN,
SHAPED

For POSTAL and general purposes; also PATENT BARREL PACKAGES with Metal ends for dry goods. Inventors of the "NOVEL" METAL PERFUME SPRINKLERS.

Office & Warehouse—S GREVILLE ST., MATTON GARDEN, LONDON, E.C.
Steam Works, Mount Pleasant, Gray's Inn Road, London, and Ring Factory, Clonakilty, County Cork.



FOLLOWS & BATE, LIMITED, ENGINEERS, MANCHESTER.

SPECIALTIES.

Drug Mills, Tincture Presses in Wood and Iron, Edge Runners, Mixing Machines, Pan Mills, Paint and Colour Grinding Machines, &c.

PRICES AND PARTICULARS ON APPLICATION.

COCKING & CO., YOKOHAMA,

DISTILLERS OF

JAPAN OIL of PEPPERMINT

AND MENTHOL CRYSTALS,

Beg to draw the attention of the Trade to their extra steam refined, twice rectified, water white PEPPERMINT OIL, retaining its full aroma, pungency, and strength: it is considerably cheaper than H. G. and other American Oils, and consumers will do well to give it a trial. Our Oil is specially rectified by means of apparatus constructed according to our own invention, by which all those polymeric products of a tarry nature are extracted, the presence of which causes the Oil to have the rather characteristic flavour (pertaining to all other Japan Oil) objected to by most consumers. It is perfectly soluble in spirits of wine, and makes a beautifully bright Essence of Peppermint.

See that each Bottle is in its Original Wrapper, and has our Trade Mark strap across the mouth of the Bottle.

Can be obtained from all the leading Wholesale Druggists, amongst whom we may mention the following:—

BAISS BROTHERS & CO., London.
BARRON, SQUIRE & CO., London.
BATTLE & WATTS, London.
BURGOYNE, BURBIDGES, CYRIAX & FARRIES, London.
CORBYN, STACEY & CO., London.
CURLING, GEO., & CO., London.
DAKIN BROTHERS, London.
DAVY, YATES & ROUTLEDGE, London.
EVANS, GADD & CO., Exeter.
EVANS, SONS & CO., Liverpool.
GLASGOW APOTHECARIES COMPANY, Glasgow.
GOODALL, BACKHOUSE & CO., Leeds.
HARKER, STAGG & MOSS, London.
HARRIS, PHILIP & CO., Birmingham.
HATRICK, W. & R., & CO., Glasgow.
HEWLETT, C. J., & SON, London.

HILL, A. S., & SON, London.
HODGKINSON, PRESTON & KING, London.
HUSKISSON, H. O., & CO., London.
LANGTON, EDDEN, HICKS & CLARK, London.
MACFARLAN, J. E., & CO., London.
MACKEY, MACKEY & CO., London.
NEW APOTHECARIES COMPANY, Glasgow.
RAIMES & CO., Edinburgh.
RAIMES & CO., York.
REYNOLDS & BRANSON, Leeds.
SANG & BARKER, Edinburgh.
SOUTHALL, BROTHERS & BARCLAY, Birmingham.
THOMPSON, H. A., & SON, London.
WALKER, TROKE & CO., London.
WOOLLEY, JAMES, SONS & CO., Manchester.
WRIGHT, LAYMAN & UMNEY, London.

WYMAN & WESTWOOD, London.

Wholesale Agents—SPIES BROS. & CO., 106 FENCHURCH STREET, LONDON.

PETROLEUM JELLY.

SAVE 50 PER CENT. ON VASELINE.

GEOLINE
TRADE MARK

IS THE BEST FORM OF *Paraffinum Mollé* (B.P. 1885) MANUFACTURED IN ENGLAND.

A perfectly pure, inodorous, and stable Hydrocarbon Jelly; highly recommended by the profession as a basis for all ointments and pomade, as it never turns rancid.

Extract from the "LANCET," of the 2nd January, 1886.—"We have examined a sample of this product of Petroleum, and it appears to us to possess all the advantages that are claimed for it. Under most favourable conditions for decomposition we have found it to retain its purity."

Extract from the "BRITISH MEDICAL JOURNAL" of the 23rd January, 1886.—"Geoline is the best vehicle in the preparation of citrine ointment and oxide of zinc. Not only does it blend admirably with the nitrate of mercury, but it makes a stable zinc oxide ointment, which keeps for an indefinite length of time pure and good."

"The dilute citrine ointment made with Geoline keeps absolutely pure, is of a very firm consistency, pleasant in its use, having a nice jelly-like appearance."

GOLDEN OR WHITE GEOLINE,

In elegant Nickel-capped Bottles, 2 sizes; Square Tins (Self-opening), containing 5, 10, and 25 lbs.; and in Drums and Casks.

FOR SAMPLES AND PRICES APPLY TO THE

GEOLINE MANUFACTURING COMPANY.

Works—PENARTH STREET, OLD KENT ROAD, LONDON, S.E.

CURIOUS ADVERTISEMENT OF 100 YEARS AGO!!

PEARS' SOAP



gives
com-
plexions
as
vnto
new
milk
and
ripe
cherries

*Comely dames, brave squires, pretty little misses
& smart little masters, regularly use*

PEARS' SOAP

Pears - Soapmaker to ye King

Pears' Soap can be bought at all ye skopp's

BY ROYAL LETTERS PATENT.

HASSALL & CO.'S PHOSPHO-CITRIC ACID

TO SUPERSEDE CITRIC AND TARTARIC ACIDS FOR AERATED WATERS.

Is recommended by the most eminent Physicians in Great Britain. The Best Houses in the Trade have already adopted it. It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £6 per cwt. cheaper than Citric Acid.

WE COMPETE ON QUALITY & PRICE.

THE PATENTEES CLAIM FOR IT, AMONGST

1. That there is no risk of prosecution, and consequent ruin of business, for lead contamination.
2. That it does not deteriorate by exposure, and will retain all its properties any length of time.
3. The price is only 10d. per lb. in 9 and 18 gallon casks; if in smaller quantities, 1s per lb.
4. It is now an established fact that the beverages made with this acid far excel all others in keeping properties, as there is not the fungoid growth that there is with other acids.

3-oz. Sample will be sent on receipt of postage (3 stamps), or 14 lbs. will be sent on approbation.

OTHERS, THE FOLLOWING ADVANTAGES:—

5. The Essences retain their strength to a greater degree.
6. A thoroughly clear and pure beverage is obtained, whilst a greater "body" and more fruity character is imparted.
7. Time and labour saved. Being in liquid form, requires only to be measured and added direct.
8. It is entirely free from Sulphuric, Hydrochloric, Nitric, Acetic, or other cheap Acids.
9. It does not affect the metal pipes to the same extent that Citric and Tartaric Acids do.

Extract from the "ANALYST," the medium of communication between Public Analysts, for September 1884—

CITRIC and tartaric acids have long been used for acidulating or giving to mineral waters their acid flavouring, but these acids have certain disadvantages, inasmuch as their solutions cannot be kept for any great length of time without the formation of a fungoid growth, and also the extreme difficulty of obtaining them free from lead. A solution has recently been offered to the trade called Phospho-Citric Acid, the properties of which will no doubt interest Analysts. Poisonous metals were entirely absent, and so also were free sulphuric, hydrochloric, nitric, and acetic acids. The solution was clear and colourless. The quantity of phosphoric acid in a small bottle (half-pint) will amount to '95 grain, which I found to be the case in a sample of lemonade made with the above. The flavour and appearance were quite as good as that made with the organic acids. There is no reason why this article should not be used in this highly diluted form as the acid flavouring of lemonade and other mineral waters.

JAMES NAPIER'S REPORT, July 30, 1884.

I examined samples for poisonous metals, especially arsenic, lead, and copper, but could not find the slightest trace. Free sulphuric, hydrochloric, nitric and acetic acids were also absent; indeed, no free acid exists but phosphoric and citric. From analysis and careful examination, I am of opinion that, as an article to supersede tartaric and citric acids in mineral waters, phospho-citric is in many respects superior to those acids. As is well known, it is almost an impossibility to obtain tartaric and citric acids free from lead, so that this article, having no metallic contamination, is purer than those acids. I see no reason why the use of phosphoric acid, in a highly diluted form, will not prove beneficial and be much more superior to tartaric and citric acids. As phosphoric acid is a necessary constituent of the body, whilst tartaric and citric are entirely absent, it is certainly an advantage to use it, as it is as a very important ingredient to the system and one which is too often obtained in insufficient quantities. The lemonade was entirely free from metallic contamination and fungoid growth, had a bright appearance, was particularly clear, and had a very agreeable flavour. I have no doubt but Phospho-citric Acid will be much used, as it is well suited for its intended purpose, i.e., to supersede citric and tartaric acids in mineral waters.

JAMES NAPIER, F.C.S., F.I.C., Public Analyst, London.

Dr. HASSALL'S REPORT.

The Analytical Sanitary Institution, 54 Holborn Viaduct, E.C., London, June 25, 1884.

Having submitted to analysis a sample of Phospho-citric Acid, we find it to be entirely free from lead and other metallic impurities. Free sulphuric, hydrochloric, and acetic acids were also specially tested for, and found to be absent. The solution was clear, colourless, and, when sufficiently diluted, possessed an agreeable flavour. It is evident from the foregoing particulars that this preparation is well suited to supersede tartaric and citric acids, commonly employed in the manufacture of acidulated and aerated waters; while in its cheapness, freedom from metallic contamination, and in the circumstance that it would tend to preserve beverages made with it for a greater length of time (as there would be less tendency to the development of the fungoid growth frequently observed when the ordinary acids have been used), Phospho-citric Acid offers very considerable advantages.

ARTHUR HILL HASSALL, M.D.

Author of "Food: its Adulterations and Methods for their Detection."

The above is also confirmed by EDWIN GODWY CLAYTON, F.C.S., &c., &c.

Professor JUSTUS VON LIEBIG,

Equally well known in England and Germany, says: Phosphoric Acid is a never-failing ingredient of all the organised structures of the animal body. The substance of muscular fibre, the fibre of the blood, the pulmonary tissues, the liver and the kidneys contain an amount of phosphoric acid in chemical combination. The bones of the vertebra contain more than half their weight of phosphates of lime and magnesia. The substance of the brain and the nerves contain phosphoric acid. The blood contains under all circumstances a certain amount of phosphoric acid.

Dr. WILLIAM B. CARPENTER

Says: Phosphorus exists in combination with albuminoid compounds, and in all animal substances composed of these. The proportions of phosphorus in the brain is considerable, being from 8 to 15 parts in 1,000 of the whole mass, or from 1-20th to 1-30th of the whole solid matter. It seems to be unusually deficient in the brains of idiots.

123 Lonsdale Street West, Melbourne, June 11, 1885.

Gentlemen,—We have tried the Phospho-citric Acid and have much pleasure in pronouncing it a decided success. It is free from any objectionable flavour or taint, and being in liquid form is a great boon, as the time and trouble in weighing and dissolving the other acids is a consideration in the busy time. We consider all aerated-water makers will find it greatly to their advantage to adopt the use of it.—Yours sincerely, R. O'DONNELL & Co.

46 Myddelton Street, London, E.C., August 20, 1885.

Gentlemen,—After fifteen months' continuous use of your acid we have much pleasure in testifying to its excellence. We find it possesses all the properties required by us for our trade, and is at the same time a great saving in time and expense.—Yours respectfully, R. MAYER & SONS.

2, 3, and 4 Rose Lane, London, August 18, 1885.

Gentlemen,—We have now been using your Phospho-citric Acid over fourteen months, and have much pleasure in stating that we like it very much. It is certainly easier to work with than citric and much cheaper. We can find no fault whatever with it.—Yours truly, T. WATTS.

Catherine Street, Strand, May 7, 1885.

Gentlemen,—We have much pleasure in stating we have used your Phospho-citric Acid for several months, and find it a great improvement to the flavour of the lemonade, &c., also about 70s. per cwt. less than citric acid crystals. It is also a great boon in the saving of time, as it is always ready for instant use.—We are, yours respectfully, W. R. LISTER & CLEWOW.

Newcastle-on-Tyne, August 28, 1885.

Gentlemen,—I have now been using your Phospho-citric Acid for a considerable time, and have much pleasure in saying that it is the best and most economical article for the purpose I have met with. In my opinion it is far superior to the ordinary acids, producing a better beverage, and far easier to manipulate.—Yours truly, W. GLENDINNING.

Cathay, Bristol, August 12, 1885.

Gentlemen,—I have used your Phospho-citric Acid daily for the last ten months with a rapidly-increasing business, to the satisfaction of my customers and profit to myself, being only about half the cost of the other acids and ready for instant use; it gives me every satisfaction.—Yours respectfully, C. E. BEAVIS.

3 Sussex Street, Blyth, November 12, 1884.

Gentlemen,—I am happy to inform you that I have tried your Phospho-citric Acid, and I find it quite as good as you represent it to be. It saves labour, and is little above half the price of citric and tartaric acids. The cask I ordered last week is to hand.—I remain, yours respectfully, THOMAS FORSTER.

SCORES OF TESTIMONIALS MAY BE SEEN AT ANY TIME.

Sole Agents for Australia and New Zealand—

LAWRENCE & O'FARRELL, 86 Queen St., MELBOURNE.

HERBERT RAYMOND, 26 Exchange, Pitt St., SYDNEY.

HASSALL & CO., No. 1 WAREHOUSE, GT. NORTHERN GOODS DEPOT, LONDON.

KING'S CROSS,

Telephone Number,
1852.

Advertisers' & Buyers' Reference List, AND INDEX TO ADVERTISEMENTS.

TELEGRAPHIC ADDRESS—
CHEMDRUG
LONDON.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

Please note that to satisfy Post Office requirements the Advertisements are paged twice—once in Arabic, once in Roman numerals.

AI MENTHOL CONES <i>Menthol in Variety</i> 5	GOODALL, BACKHOUSE & CO. <i>Yorkshire British, &c.</i> ii	MORGAN CRUCIBLE CO. <i>Crucibles</i>
ALLEN & HANBURY'S <i>Liquid Malt, Fluid Extracts, &c., Wholesale Druggists</i> COVER	GOVERNMENT (THE) SANITARY CO. <i>Disinfectant</i> 5	MUMFORD, G. S. <i>Lin. ora, Sarch Fuller's Earth, &c.</i> TEXT 206
APOLLINARIS CO. <i>Apollinaris Water vii, Hunyadi Janos</i> 22	GRINDLEY & CO. <i>Petroleum Jelly</i> 4	MURRAY, SIR JAMES <i>Fluor Magnesia, Fluid Camp' or xlii</i>
ASSISTANTS WANTED <i>Coloured Supp.</i>	G.I. TOWER ST. TEA CO. <i>Celebrated London Teas</i> iii	NATIONAL CHEMICAL CO. <i>Chloride of Lime</i> 3
AUSTIN & CO. <i>Cardboard Boxes, Perfume Sprinklers, &c.</i> 7	HAILEY & CO. <i>Lanoline</i> vi	NOAKE <i>Artificial Cakes, Biscuits, &c.</i> 7
BAILEY, W. H., & CO. <i>Drug Mill</i> iii	HAMILTON & CO. <i>Carbolica</i> 23	NORTH LONDON GLASS BOTTLE WORKS 15
BARBER, G., & CO. <i>Cochineal, Crimson Marking Ink, &c.</i> 1	HARRIS, PHILIP & CO. <i>Oxide of Zinc</i> vii	OLDFIELD, PATTISON & CO. <i>Vegetable Butter</i>
BARNETT & LOSTER <i>Machinery Back Cover</i>	HART, F. W. <i>Photographic Apparatus</i> 14	ORRIDGE & CO. <i>Transfer Agents Colours & Supp.</i>
BARRON, SQUIRE & CO. <i>Wholesale Druggists</i> viii	HASTON & CO. <i>Ginger Ale</i> 4	OSCAR, SUTTON & CO. <i>Too h Blocks Dentifrice</i> i
BATTLE, J. R. <i>Vermin Killer</i>	HASSALL & CO. <i>Phospho-Citric Acid</i> 10	PARCHMENT (THE) AND WAX PAPER CO. <i>Oil Paper, &c.</i> 26
BAUMGARTNER & CO. <i>Brilliant Polishing Powder</i> 4	HAYWARD TYLER & CO. <i>Steam Engine</i> 25	PATENT PLUMBAGO CRUCIBLE CO. <i>Crucibles</i> 4
BEESEY & SONS <i>Leibig's Iodized Cod Liver Oil xli</i>	HEARN, RIDDLELL & CO. <i>Bottles</i> 15	PATTISON, G. (YOUNG) <i>Transparent Soaps</i> 9
BINGLEY, JOHN <i>Ginger Ale</i> 21	HEARN, SQUIRE & FRANCIS <i>Terebene</i> TEXT 206	PEARSE & F. <i>Transparent Soaps</i> 9
BLAKE & MACKENZIE <i>Fly Paper, Printing</i> 14	HERTZ & COLLINGWOOD <i>Cod Liver Oil</i> x	PEARSE & WHEATLEY <i>Tea and Coffee Dealers</i> iii
BOWDEN, F. H. <i>Henry's Great Indian Remedies</i> xi	HODGE & CO. <i>Improved Truss</i> x	POTTER & CLARKE <i>Botanic Druggists</i> x
BRAMWELL & SON <i>Cream Castile Soda and Epsom Salts</i> 4	HOLMAN LIVER PAD CO.'S REMEDIES <i>3</i>	TOWELL & BARKSTOW <i>Surgical</i> 4
BRATBY & HINCHLIFFE <i>Soda Water Plant</i> 27	HOPBITTES <i>Caution and Guarantee</i> xi	PRICE'S PATENT CANDLE CO. (LIM.) <i>Glycerine</i> 20
BRITISH SYMPION CO. <i>Syphons, Gazozones</i> 21	HOUGHTON & CO. <i>Photographic</i> 14	ROBINSON, B. <i>Corn and Wurt Pencil</i> 1
BUCK, F. <i>Dentistry</i> 14	HOWARDS & SONS <i>Quinine and Pharmaceutical Chemicals</i> ix	ROGERS, J., & CO. <i>Eng. h Urns & Willow Boxes</i> 6
BUSH, W. J., & CO. <i>Essential Oils, Soluble Essences, French Cream</i> 23	HUNYADI JANOS <i>Waters</i> 22	ROSS & C. <i>Vinum Aurantii</i> 15
BUSINESSSES FOR DISPOSAL <i>Coloured Supp.</i> 20	INGRAM & ROYLE <i>Natural Mineral Waters, COVER</i>	ROTHERMEL <i>Vinegar-making Machine</i> iii
BUTLER, MCCULLOCH & CO. <i>Herbalists, Leeches, Waters</i> x	ISAACS & CO. <i>Bottles</i> 15	ROUSE & CO. <i>Matthew's Fuller's Earth</i> 20
CADBURYS BROS. <i>Cocoa F's once. COVER</i>	JAMES, LIEUT. <i>Horse Blister</i> 16	SANITAS CO. (LIM.) <i>Disinfectant</i> TEXT 206
CAPPER, W. B. <i>Cryolite Hair Producer</i> 4	JAMES, R. J. <i>Veterinary</i> 16	SAVORY & MOORE <i>Peptonising Tablets</i> vi
CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY <i>School</i> 3	JENSEN'S <i>Cod Liver Oil, "Jockey Brand"</i> x	SCHOOL OF PHARM. (Bloomsbury Sq.) <i>School</i> 3
CHEMISTS' AERATED WATER COMPANY <i>Aerated Waters</i> 25	JEWSBURY & BROWN <i>Sparkling Aerated Waters</i> 24	SELF-OPENING TIN BOX CO. <i>7</i>
CHUBB, J. C., & CO. <i>Seidlitz, Violet, Fuller's Earth Powders</i> iv	JONES, DR. G. H. <i>New Pamphlet</i> 4	SHIRLEY, J. G. A. <i>Al Men hoi Cones</i> 7
COLEMAN & CO. <i>Leibig's Extract of Meat and Malt Wine</i> ii	JUDSON & SON <i>The Latest Invention</i> 19	SILICATED CARBON FILTER CO. <i>Filters</i> 19
CROUCH, F. B. <i>Damiana Wafers</i> 5	" <i>Specialties, Dyes, Gold Paints</i> 19	TEXT 206
DARTON, F., & CO. <i>Spectacles, Clinical Thermometers</i> v	KENDALL, J. H. <i>Liq. Humuli Co. Conc.</i> 3	SIMCOCK, T. W. <i>Druggists' Sundries, Bottles, &c.</i> 5
DAVIS, M., & CO. <i>Filters, Flytrap, Vials, &c.</i> 4	KILNER BROS. <i>Feeding and Dispensing Bottles</i> 15	SMITH, T. J. <i>Cod Liver Oil</i> x
DIXON, F. D. <i>Fluid Magnesia</i> xii	LAZENBY, E., & SON <i>5</i>	SPIES BROF. & CO. <i>Cod King's Japan Oil of Peppermint</i> iii
DOULTON & CO. <i>Filters</i> 27	LEAROLD, E. B. <i>Compound Glycerine Linctus</i> 5	SPINNER & CO. <i>Spinner's Tea</i> 8
DUNLOP, MITCHELL & CO. <i>Filters</i> 27	LEVERMORE, AUG., & CO. <i>Pure Precipitated Chalk</i> 4	SPRATTS PATENT <i>Dog Biscuits & Medicines</i> 11
DURRANT & CO. <i>Perfumes</i> 3	LIEBIG CO. <i>Extract of Meat</i> 13	STEARNS, FRED., & CO. <i>Non-Secret Medicines</i> xi
ELLIS, R., & SON <i>Ruthin Aerated Waters</i> 21	LINCOLN AND MIDLAND COUNTIES DRUG CO. <i>Clarke's Blood Mixture</i> viii	STEVENS, P. A. <i>White Gutta-percha</i> 4
ELVIN BROS. <i>Fluid Sheep Dip</i> 3	LINDSEY, C. R., & CO. <i>Acetic Acid</i> 15	THOMAS, R. W., & CO. <i>Photography</i> 26
ESTES, E. B., & SONS. <i>Turned Wood Boxes</i> 6	LIVERPOOL PATENT LIVER CO. <i>Liver</i> 4	THOMPSON & NORRIS MANUFACTURING COMPANY <i>7</i>
EVANS, SONS & CO. <i>Lescher's Materia Medica</i> 26	LIVERPOOL SCHOOL OF PHARMACY <i>School</i> 3	TOOGOOD, W. <i>New Pencil, Earthware Covered Pats</i> 17
EVANS, LESCHER & WEBB (London) <i>26</i>	LONDON HOMOEOPATHIC HOSPITAL <i>Hospital and School</i> 2	TYLER, HAYWARD, & CO. <i>Steam Engine</i> 25
EVANS, SONS & MANSON, LIM. (Australas) <i>26</i>	LONDON HOSPITAL & MEDICAL COLLEGE <i>2</i>	TYRKE & KING <i>Pure Acids, Essences of Pear and Pine Apples</i> 4
EXCHANGE COLUMN <i>Coloured Supp.</i>	LONGMANS, GREEN & CO. <i>Life of John Mercer, F.R.S., F.C.S.</i> 2	TYRER, P. <i>Borough Ketchup</i> iii
FARMILOE, GEO., & SON <i>Glazed Zinc</i> iv	LYNCH & CO. <i>Dispensing Bottles COVER</i>	VACCINE ASSOCIATION <i>Pu e Vaccine Lymph</i> 15
FAYARGER <i>Soda Water Machinery</i> 22	" <i>Lock-lid Covered Pots</i> 1	VALLET, L. <i>Patent Stoppered Bottles</i> 21
FENNINGS, ALFRED <i>Children's Powders, COVER</i>	MACNIVEN & CAMERON <i>Pens</i> 26	WALKER & DALRYMPLE <i>Tea</i> iii
FINK, FRED., & CO. <i>Glycerine, Gums, &c.</i> 4	MANCHESTER, THE, COLLEGE <i>Schools</i> 16	WALKER, TROKE & CO. <i>Trade Mark Photo</i> viii
FOLLOWS & BATE <i>Druggists' Machinery of all kinds</i> 7	MARION & CO. <i>Amateur Photography</i> 16	WALL, G. C. <i>Wax Paper</i> 26
GEOLINE MANUFACTG. CO. <i>Petroleum Jelly</i> 8	MARTIN, J. W., & CO. <i>Perfumery</i> 20	WARNER & PFEIDERER <i>Chemists' Machinery</i> 27
GEORGE & WELCH <i>Dandelion Coffee, &c.</i> iv	MAUBERT'S SOAPS <i>Althoa</i> 20	WEST, THOMAS <i>Okell's Mount Bouquet</i> 20
GEHAUT, EUGENE, & CO. <i>Machinery, Syphons, &c.</i> 21	MAY, ROBERTS & CO. <i>Seltzogenes</i> 22	WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY <i>School</i> 2
GIBSON, R. <i>Lozenges</i> 1	MAY & BAKER <i>Cumpror Tablets, COVER</i>	WHEELER'S GLYCERINE JELLY <i>20</i>
GILLOTT, J. <i>Pens</i> 2	MEADOWCROFT, W. <i>Fruit Essences, &c.</i> 22	WYLEYS & CO. <i>Coat'd Pills, Pharmaceutical Wholesale Druggists</i> xii
	MEINERTZHAGEN <i>Sarsaparilla and Ipecacuanha</i> 4	YOUNG (PATTISON) <i>Eath Gloves</i> 5
	METCALF, THEODORE <i>Coca Wine</i> xi	
	MILLS & CO. <i>Bourne Aerated Waters</i> 25	

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERATED AND MINERAL WTS AND PLANT

[See SYPHONS and ESSENCES.]
Aerolup Bitter Water Co (Lim.)
Apollinaris (Hunyadi, Friedrichshall, and Apollinaris)
Barnett and Foster
Bratby and Hinchcliffe
British Sympion Co.
Bush, W. J., & Co. (Foam Producer, &c.)
Chemists' Aerated Waters Association
Ellis (Ruthin)
Fayarger, H.
Gerat and Co.
Guere Freres
Harston & Co.
Hassall and Co. (Citric Acid, Phospho)

Aerated & Mineral Wts. & Plant. -cont.

Hooper and Co. (Brighton Seltzer)
Ingram and Royle (Mineral and Vichy)
Jewsbury and Brown
Kimmond and Co.
La Bourboule
Meadowcroft, W.
Mills and Co. (Bourne)
Monterat Lin Juice
Schweppe and Co.
Stevenson and Howell
Taylor, T. and F. J.
Tyler, Hayward, and Co.
Vallet, J. (Bottles)
Yunger and Ridley (Temperature Wines)

ALCOHOL

Smith, T. and H., and Co.

ACETIC ACID

Dunn and Co.
Hirst, Brooke and Hirst
Lindsey, O. R., and Co.
ALKALOIDS
Howards and Sons (Cinchona)
Smith, J. and H.
AMMONIA
May and Baker
Hirst, Brooke and Hirst
APPARATUS
Carter, J. H.
Follows and Bate, Lim.
Knowles, Thos. (Balances)
Maud, W. R. (Measuring)
May, Roberts (Water-bath)
Morgan Crucible Co.
Orme (Scientific)
Pat. Plumbago Co.
Rutherford, Paul (Vinegar)
Wolters Otto (Balances)

AGENCIES ABROAD

Cocking (Japan)
Davison, A. [delphia]
Elsner and Mendelson (Philadelphia)
Evans, Sons and Mason (Canada)
Felson (Melbourne)
Fougers (New York)
Hormusjee Ruttonjee (Bombay)
Kempthorne (New Zealand)
Lennon (Port Elizabeth)
MacNaughton (New York)
Mayhew, E. (Wetm. Australia)
Phillips and Co. (Bombay)
Prosser, E., and Co. (Sydney)
Roberts (Paris, &c.)
Rocke (Melbourne)
Sharland & Co. (Auckland N.Z.)
Shirreffs and Co. (Alahabad)
Symes and Co. (Sims)

BANDAGGS

Bailey and Son
Bole Hall Mill Co.
Gibbs, Cuxson, and Co.
Hutchinson, A., and Co. ("Hite")
Liverpool Lint Co.
Robinson and Sons
Seahury and Johnson
Statham and Co. (Porous Elastic)
BANK
Birkbeck Bank
BATH GLOVES
Pattison, G.
BEDS, WATER
Hooper and Co.
Hutchinson, A., and Co. (Sheeting Rubber)
BEESEW & HONEY
Kemp, W., and Son

BICARB. SODA

Brunner, Mond and Co.
Gaskell, Deacon and Co.
Howards and Sons
May and Baker

BISMUTH PREP.

Carr, Graham and Co.
Howards and Sons
May and Baker

BOOKS

Dobell, Dr. (Bournemouth)
James, Dr. Prosser (Guide to
New B.P.)
Leo and Co.
Longman & Co.
Smith, J. G. ("Aertd Wtrs")

BOTTLES

Ayrton and Saunders
Barnett and Foster (the
"Eclipse" Stoppers)
Brady and Hinchliffe
Brooks, Peel (Perfumers)
De Luca, G. V.
Glasgow Apothecaries' Co.
Harris and Co.
Hearn, Riddle
Hunt's Bottle Caps
Isaacs, I., and Co.
Kilner Bros.
Potts
Simcock, T.
Simcock, W.
Thompson, Millard and Co.
Toogood (Feeding)
Vallet

BOXES

Austin and Co. (Cardboard)
Ayrton and Saunders (Willow)
Brady and Hinchliffe
Estes' Turned Wood
Faul, Paul (Pine and Willow)
Noakes, B., and Co.
Robinson and Sons (Cardboard)
Rogers, J., and Co.
Self-Opening Tin Box Co.
Thompson Norris Manfg. Co.

BROMIDIA

Battle and Co.

BRUSHES

Ashworth (Metallic)
Dukas and Co.
Gérard, A. (Toilet)
Titterton & Howard

BUTTER COLOUR

Bush, W., Son, and Co. (Mari-
goldine)
Mezer and Henckel
Oldfield, Pattinson and Co.

CAMPHOR

Howards and Sons (pathic)
Keene and Ashwell (Homoeo-
May and Baker
Murray, Sir James (Fluid)

CAPSULES

Betts and Co. (Metallic)
Chevalier (Solubles)
Denoual, J. (Medicinal)
Hooper, B., and Co.

CARMINE

Bush, W. J., and Co.
Sellers

CATALOGUES

Bourne, Johnson, and Latimer
Newbery and Sons
Quarterly Price Current (Maw's)

CEMENT

Foulkes
Kay (Coagulins)

CHALK PRECIP.

Dunn and Co.
Levermore and Co.

CHEMICALS

Bramwell, B., and Son
Brunner, Mond and Co. (Bicar-
bonate of Soda)
Bush, W., and Co.
Dunn and Co.
Gaskell, Deacon and Co. (Bi-
carbonate of Soda)
Howards and Sons (Pharma-
ceutical)
May and Baker
Oldfield, Pattinson and Co.
Smith, T., and H.
Sumner, R., and Co.
Sutton and Co. (Volumetric
Analysis)
Typek and King
Walker, Troke and Co.
Zimmermann, A. and M.

CHLORODYNE

Bage, T., Blyton, and Co.
Davenport (Browne's)
Freeman
Towle, A. P.

CHLOROFORM, &c.

Duncan, Flockhart
Macfarlan, J. F.
Smith, T., and H.
Zimmermann

COCAINE

Howards and Sons
McKesson and Robbins (Hydro-
chlorate of)

COCOA & CHOCOLTE

Cadbury Bros.
Fry (Malted)
Richards, J. M. (Delacres)

COD-LIVER OIL

Allen and Hanburys
Baiss Bros.
Beesley, J. E., and Sons (Iodized)
Carr, Graham and Co.
Hooper, B., and Co.
Jensen's "Iceberg Brand"
Smith, T. J.
Southall Bros. and Barclay (Al.)

COFFEE

George and Welch (Dandelion)
Symington (Various Essences)

CORRUPTD PAPER

Thompson Norris Manufg. Co.

COMPRESSED MDCS

Drysdale and Co. (Leo's Chloro-
Potash)

Hooper, B., and Co.
Newbery, F., and Sons

CORN CURES

Robinson, B.
Young's

COTTON WOOL

Haynes and Co.

CRUCIBLES

Moran Crucible Co.
Pat. Plumbago Co.

DENTIFRICES

Beddard, J.
Jewsbury and Brown
Martin, J. W. (Rozallum)
Rimmel
Sutton, O., and Co.

Thompson and Capper
Woods, W. (Arecia Nut)

DENTISTRY

Buck, F. (Lessons)
Jones, Dr. G. H. (Mechanical)

DISINFECTANTS

Dinsdale, J. T. (Pam)
Government Sanitary Co.
Hamilton and Co. (Carbolic)
Harrison and Co. (Hydrochloric)
National Chemical Co.
New Carbolic Sanitary Co.
Rimmel
Sanitas
Steele & Co. (Chloride of Lime)
Vogt, G.
Wyleys and Co. (Pure Terebene)

DOG MEDICINES

Spratts' (Patent) ("Fibrine")

DRUG MILLS

Bailey & Co.
Carter, J. H.

Follows and Bate (Entrprs.)
Werner and Pfeleiderer

DRUGGISTS' SUN.

Ayrton and Saunders
Baiss Bros.
Bourne, Johnson
Evans, Lescher and Webb
Hochlin, Wilson and Co.
Lairitz (Pine Wool)
Lynch and Co.
Maw, S., Son and Thompson
May, Roberts and Co.
Newbery, F., and Sons
Schutze and Co.
Simcock, W.
Thompson, Millard
Toogood

DUBBIN

Dales, J. T.
Jamieson and Co.

DUTCH MEDCNS.

Bieber, J. D.

DYES

Ayrton and Saunders
Judson's (Patent) (Coch Cast)

EAU DE COLOGNE

Farina, J. M. (Gegenüber)

ELECTRIC APPAR

Darton, F., and Co.
Orme and Co.

ENEMAS

Ingram and Son
Lynch and Co.
Schutze and Co.

ENGRAVERS

Barker, W., and Son

ESSENCES, FRUIT

AND SOLUBLE

Brady and Hinchliffe
Bush, W. J., and Co.
Fletcher, Fletcher and Steven-
son
Jackson, J., and Co.
May and Baker
Meadowcroft, W.
Radlauer's Ess. of Pines
Stevenson and Howell
Sumner and Co. (Ginger Ale)
Sutton, Francis and Co. (Stan-
dard Solutions)
Typek and King (Pear and
Limeapple)

EXTRACT, MEAT

Brand and Co.
Burgoyne, Burdidge and Co.
(Dr. Kuchel)
Colman & Co.
Hugo, Brown and Co.
Liebig Co.
Potts (Leube Rosenthal)

ETHER

Duncan, Flockhart and Co.
Howards and Sons (Chloric)
May and Baker
Robbins

ESSENTIAL OILS

Bush, W., Son and Co. (Imprs.)
Bush, W. J. (Lemons, &c.)
Clay, Dod & Co.
Cooking (Japan Peppermt)
Jackson & Co. (Peppermt. &c.)
May and Baker
Rocke, Tompsitt (Eucalyptus)
Stallman and Fulton
Stevenson and Howell
Todd (Am. Peppermint)
Vogt, G.

EXTRACTS, FLUID

Baiss Bros.
Barber, G., and Co.
Burgoyne, Burdidge
Fletcher, Fletcher & Steven-
son
Howards & Sons
Stearns, F., and Co.
Thompson, Henry Ayscough,
and Son

FACE POWDERS

Chubb, J., and Co. (Violet)
Foulkes

FEEDING BOTTS.

Bourne, Johnson and Co.
Hearn, Riddle and Co.
Kilner Bros.
Lang, J., and J.
May, Roberts, and Co.
Richards, Charles (The Cliner)
Simcock, T.
Thompson, Millard and Co.
Toogood, W. ("The West-
minster")

FILTERING

Doulton and Co.
Dunlop, Mitchell and Co.
Fildon, D., and Son
Maignen (Filtr. Rapide)
Mawson and Swan
Schwenker, E., and Co. (Paper)
Silicated Cerb. Filtr Co.

FOOD, INFANTS'

Clarke, S. (Food Warmers)
Jensen (Peptone)
Macleod's Revalenta
Nestle, H.
Savory and Moore (Pancreatic)
Doulton and Co.
Dunlop, Mitchell and Co.
Fildon, D., and Son
Maignen (Filtr. Rapide)
Mawson and Swan
Schwenker, E., and Co. (Paper)
Silicated Cerb. Filtr Co.

FOOD, INVALIDS'

Clarke, S. (Food Warmers)
Jensen (Peptone)
Macleod's Revalenta
Nestle, H.
Savory and Moore (Pancreatic)
Doulton and Co.
Dunlop, Mitchell and Co.
Fildon, D., and Son
Maignen (Filtr. Rapide)
Mawson and Swan
Schwenker, E., and Co. (Paper)
Silicated Cerb. Filtr Co.

FUNNELS

Maud, W. R. (Self-acting)

GINGER ALE

Bingley, J.
Kimmond
Mills, R. M.
Ross and Co.
Schweppe (Dry)
Sumner, R., and Co.

GINGER - BEER

POWDERS

Kemp and Son

GLYCERINE

Fink
Price's Candle Co.

GRANULAR PREP.

Allen and Hanburys
Bishop, A.
Bush, W., and Co.
Goodall, Backhouse and Co.
Toilet Cream
Stearns, F., and Co.

GRINDING MCHNS

Bracher and Co.
Carter's Disintegrators
Follows and Bate
Werner and Pfeleiderer

GUMS

Fink (Arabic, &c.)

GUTTAPERCHA

Duncan, Flockhart
Stevens, P. A. (White)

HAIR PREP.

Ayrton and Saunders
Bates, T. W. (Frizzetta)
Capper, W. B. (Crinodone)
Chesbrough Manfg. Co.
James and Co. (Herbl. Pom.)
Rimmel
Sturrock's Oleagum
Comairine
Towle's Toilet Cream (Thorn-
ton)

HOMEOPATHIC

Bristol and W. of England
Epps, James, and Co.
Gilbert, W.
Gould, E., and Son
Keene and Ashwell
Leath and Ross
Thompson and Capper

HERBALISTS

Butler, McCulloch
Potter and Clarke

HARNESS POLISH

Jamieson and Co.

HOSPITALS

London Homoeopathic
The London Hospital

ICE

Barnett and Foster

INK

[See MARKING.]

Antoine
Bewley and Draper
Duncan, Flockhart
Jamieson and Co.

INSECTICIDES

For, Shapland & Co. (Fly Papers)
Galzy, E.
Judson and Son, Lim.
Maw, S., Son, & Thompson
(Insecticide-Vicat)
Radlauer (Moth Paper)
Sumner, R., and Co.
Vogt, G.
Woolley & Son (Dalmatian pdr)

KETCHUP

Tyrer, P.

LABELS

Blake and Mackenzie
Bowers Bros.
Ford, Shapland and Co.
Townsend (Exeter)

LANOLINE

Haller and Co.

LARD

Ewen, J.

LEATHER

Shaw, Alexander and John

LEECHES

Butler, McCulloch
Fitch and Nottingham
Potter and Clark

LICORICE

Craven, M. A., and Son
Maud (Compound)

LIME JUICE

Felton and Sons (Specialité)
Montserrat (see Evans)

LINSEED

Kemp, W., and Sons
Mumford

LINT

Liverpool Lint Co.
Newsome (Surgeons
Robinson and Son
Seabury and Johnson

LOOFARS

Lynch and Co.
Maw, Son and Thompson
Toogood

LOZENGES

Blyton, T. Bage, and Co. (Me-
dicated)
Craven, M. A., and Son
Gibson, R. (Manufacturer)
Kanold's Aparent

MAGNESIA

Dinneford (Fluid)
Murray, Sir James (Fluid)
Southall Bros. (Liquor)
Schweppe (Dry)
Sumner, R., and Co.

MALT EXT., ETC.

Potts (Dr. Linck's)

MARKING INKS

Barber, G., and Co. (Crimson)
Christen, J.
Clarke, J. T.
Jedson, J., and Son, Limited
Murphy, J.

MAT. MED. CAB.

Evans, Sons and Co.
Evans, Lescher and Webb

MENTHOL

A. I. Menthol Depot, J. G.
Shirley, Proprietor
Boehm, J. (Charms)
Christy and Co. (Cones)
Cocking and Co.
Dundas, Dick & Co.
Hockin, Wilson & Co.
Maw, S., Son and Thompson
Metz, P. ("Acme" cones)
Spies Bros. (Cockings)
Todd, A. M.

MERCURIALS

Bush, W., and Co.
Howards and Sons
May and Baker

METAL CASES, &c.

Noakes, B., and Co.

METHYLATED

SPIRITS

Burrough, J.
Gibb, I., Smith and Co.
Harey, J., and W.
McNair and Co.
Phillips G., and Co.

MIXING

Bracher and Co.
Carter, J. H.
Follows and Bate
Sherwin, G. E.
Werner and Pfeleiderer

MORPHIA

Macfarlan and Co.
Smith, T. and H.

MUSE

Wink, J. A., and Co.
Symes and Co. (Thibet)

MUSTARD

Finch, Rickman
Johnson, J. H. and S. (Ess. Oil)

MUSTARD LEAVS.

Metz, Paul

NIGHT LIGHTS

Clarke, S.

OILS, PAINTS, &c.

Binchampton Oil Refining Co.
Bush, W. J., and Co. (Sandal
Wood)
Elvin Bros.
Farmiloe, Geo., and Sons
Follows and Bate (Mill)
Peace, J. R., and Co.

OINTMENT BASES

Boehm, Gus. (Petroleum Jelly,
Cheesebrough (Vaseline)
De Pass, E. A., & Co. (Petrolin)
Evans, Sons & Co. (Fossilin)
Geoline Manufacturing Co.
(Petroleum Jelly)
Grindley (Petroleum Jelly)
Haller and Co. (Lanolin)
Metcalfe & Co. (Pure Wool Fat)
Saunders, C.

PAPAIN

Christy, T., and Co. (Papain-
Christy)
Kühn, B. (Papain-Finkler)

PAPER (Sanitary)

Mason & Co. (Waxed & Oiled)
Wall and Co. (Wax Paper)

PARALDEHYDE

Zimmermann, A. and M.

PATENT MEDCNS

Atkinson (Infant Preserv)
Barclay and Sons (General)
Beecham (Pills)
British Colloid (Morrison's)
Burgess, E., Lion Ointmt)
Davenport (Chlorodyne)
Edwards and Son
Fennings' (Powders)
Freeman, R. (Chlorodyne)
George and Welch (Liver)
Henry's Indian Remedies
Holloway (Pills and Oint.)
Hop Bitters
Horsford (Acid Phosphate)
Key Bros.
Lairitz's Pine Wool
Lalor (Phosphoryne, &c.)
Lincoln (Clarke's Mix.)
Leary, E. B. (Kof Kur)
Maud, W. B. (Worm Cakes)
Munday, J. (Injection Day)
Newbery and Sons
Roberts (Foreign)
Sanger and Sons
St. Dalm's (Bronchial, &c.)
Smith (Antibiotic Pills)
Spratts (Locum Oil)
Stearns' Non-secret
Stedman (Teething Powders)
Sumner and Co. (Angel's Food)
Thompson, Millard and Co.

PENS

Gillott
Macniven and Cameron

PEPMT CRYSTALS

Todd, Albert M.

PEPPERMINT OIL

Cocking (Japan)
Jackson, J., & Co.
Todd, Albert M.

PEPSINE, &c.

Bullock and Co.
Burroughs, Wellcome
Fletcher, Fletcher and Steven-
son
Jensen, C. L.
Keene and Ashwell
Savory and Moore (Pancreatic
Emulsion, Peptonised Milk)
Warner and Co. (Inglinvin)
Zimmermann

PERFUMERY, &c.

[See EAU DE COLOGNE.]

Barclay and Sons
Boehm Gustav (Various)
Briedenbach, Smelling Salts
(inexhaustible)
Chesbrough Manufacturing Co.
Crown Perfumery Co.
De Pass & Co. (Fch. Blsm. Sp.)
Ewen (Soaps)
Houbigant (Perfume)
Jackson, J., and Co. (Lavender)
Mann, C. A.
Maubert's (Soaps, &c.)
Mousson & Co. (Toilet Soap, &c.)
Newbery
Pears, A. and F. Soap
Rimmel, E. (Specialities)
Sainsbury, S. (Lav. Water)
Shaw, Alex., and John (Per-
fumery Soap)
West, T. (Okell's Mona)
Woolley, Sons and Co. (Powder)

PEROX. OF HYDR.

PILLS (Coated, &c.)

Beecham
Dodd and Co.
Evans, Sons and Co.
Holloway
"Mc K. & R." (void-capsuled)
Simpson's Herbal
Smith, W. F.
Warner, W. R. (Coated)
Wyleys and Co. (Gelatine Oval)

PHOTOGRAPHIC

Hirst, F. W.
Houghton, G., and Sons
Marion and Co.
May and Baker
Sellers, J. (Carmines Pur.)

PHARMACEUTICAL PREPS

Allen and Hanburys
Baiss Bros.
Barron, Squire and Co.
Battie and Co. (Bromidia)
Burgoyne, Burdidge and Co.
Burroughs, Wellcome and Co.
Fairchild's Preparations)
Clay, Dod and Co.
Duncan, Flockhart
Fellows (Hypophosphites)
Fletcher, Fletcher, and Steven-
son
Gibson, R. (Lozenges)
Heaton, Squire and Francis
Hewlett and Sons
Hirst, Brooke and Hirst
Howards and Sons
Kay Bros.
Keith (Conc. Tinctures)
Martindale (Nitroglycerine)
Searns (Non-secret)
Wink, J. A., and Co.
Woolley, Sons
Wright, Layman and Umney
Wyleys (Various)

PHOTO CHEMS, &c.

Thomas, R. W., and Co.

PLASTERS

Gibbs, Cuxon and Co.
Mather, W.
St. Dalmas, A. De
Seabury and Johnson
Taylor, E.
The Pelig White Propri-
etary Co.

PORCELAIN GDS

Bentley (Opal Glass)
Potha, H., and Co.
Too good (C.c. Pots, regist)

PRINTING

Blake and McKenzie
Ford, Shapland and Co.
Townsend, J.

PODOPHYLLIN, &c.

Keith, B., and Co.
Smith, T. and H.

POLISHING

Baumgartner (La Brillantine)
Bradley, Bourdas (Albatum)
Oakley, John, and Sons
Picketing and Sons
Seeger, H. (Pomatum)

PORTBLE FURNCS

Morgan Crucible Co., The

QUININE SALTS

Howards and Sons
Zimmermann

RUBBER GOODS

Hutchinson, A., and Co.

SALICINE

Macfarlan and Co.

SALINES

Allen and Hanburys
Evans, Lescher and Webb
Evans, Sons and Co.

SALOL.

Kuhn, B.

SALT

Hassall, Thos. (Bay)
Southall Bros. (Sea Salt)

SANTONINE

Bieber, J. D.

SAUCES

Goodall (Yorkshire Relish)
Lazenby (Harvey's)
Tyrer

SCHOOLS

Central School
Edinburgh Classes
Liverpool School
London Homoeopathic
Manchester College
South London School
The London Hospital and
Medical College
The School of Pharmacy
Tully, J.
Westminster College

SEIDLITZ PWDS.

Chubb, J., and Co.
Stedman

SELTZOGENES

British Syphon Mfg Co.
Gersut and Co.
Guert Freres
May, Roberts

SHAVING

Hovenden (Euxesis)
Lloyd, A. S. (Euxesis)

SHEEP DIP

Biggs, T.
Elvin Bros. (Fluid)
Grindley

SHOP FITTERS

Bowling and Govier
Bygrave, J. and W.
Curtis, J. and Son
Howlett, S.
Lemaitre, W., and Co.
Tomlinson and Sons
Treble, G., and Son
Yates, W. S.

SOAP (SOFT, &c.)

Brecknell, Turner and Sons
(Skin and Saddle)
Chiswick Soap Co.
Maubert's Genuine Brown
Mousson and Co. (Cocoa Butter)

SPECTACLES

Darton, F., and Co.
Scott, J. A., and Co.

SPIRIT, PURE AND

METHYLATED

Burrough (Pure & Methyl.)
Gibbs, Smith and Co.
Harvey, J. W., and Co.
Jones and Mason (Methyl.)
Macnair, A. (Pure)
Phillips, G., and Co. (Pure)

SPONGE

Cresswell Bros.
Dukas and Co.
Lynch and Co.
Peterson, M.
Schutze and Co. (Bags)

SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son
Colwell, H. M., & Co.
Gerrard's Ureometer
Gibbs, Cuxon and Co. (Dress-
ings)
Haywood, J. S.
Hodge and Co.
Holman Liver Pad Co.
Hooper and Co. (Water Beds)
Jensen, C., and Co. (Pallas
Syringe)
Liverpool Lint Co. (Lim.)
Lynch and Co.
Marks, A. A. (Artificial Limbs)
Maw, Son and Thompson
Powell and Barstow (Elastic
Gum Instruments)
Schutze, F., and Co.
Scott, W. A. (Instruments, etc.)
Seabury and Johnson (Tissues)
Stephenson and Travis
Thompson, Millard

STAMPS

Clarke (Rubber)
Lindner, M.
London Rubber
Pollard, A. W.

STARCH

Critchley (Gloss)
Harrop's Glaze

STOPPERS

Austin and Co. (Sprinklers)
Brooks, Peel (Sprinklers)
Vallet

SUGAR

Gibson, R.

SYPHONS

Barnett and Foster
British Syphon Co.
Geraut and Co.
Guert Freres
Lang, J. and J.
Southall Bros. (Lime Water)

SYRUPS

Stevenson and Howell (Ameri-
can Foam)

TEA

Pearse and Wheatley
Spinner and Co.
The Gt. Tower St. Tea Co.
Walker and Dalrymple

TEREBENE

Heaton, Squire and Francis
Hooper, B., and Co.
Howards and Sons

THERMOMETERS

Darton, F., and Co.
Immisch's (Patent Metallic)

TINCTURE PRESS

Burroughs, Wellcome and Co
Follows and Bate

TOBACCO

Follows and Bate (Cutter)

TRADE MARKS

AGENTS

Horn and Son

TRUSSES

Ayrton and Saunders
Bailey, W. H., and Son
Colwell
Haywood, J. H.
Hodge and Co.
Lindsey
Lynch and Co.

URETHANE

Howards and Sons

VACCINATION

Association for the supply of

VALUERS

Orridge and Co.

VERMIN KILLERS

Battle, J. R.
Steiner and Co.

VETERINARY

Chesebrough (Vaseline, &c.)
Corner, R. (Devonshire Oils)
Day, Son and Hewitt
Day and Sons
Garbett, R. (Fumigators)
James, R. J. (Blister)
Spong and Son (Pig Powders)
Spratts (Dogs)
Taylor, Thomas

VINEGAR

Grimble and Co. (Pure)
Rothermel (Making)

WAXED PAPER

Wall, G. C.
Waxed Paper Co. (Parchment)

WELESLE & EXPT

DRUGSTS

Allen and Hanburys
Baiss Brothers and Co.
Barron, Squire and Co.
Bieber, J. D. (Hamburg)
Burgess, Willows
Burgoyne, Burdidge and Co.
Bush, W., Son and Co.
Clay, Dod and Co.
Evans, Lescher and Webb
Evans, Sons and Co.
Evans, Sons and Mason
Heaton, Squire and Francis
Hewlett and Sons
Potter & Clarke (Amren. &c.)
Southall Bros. and Barclay
Stevenson and Howell
Summer, R., and Co.
Thompson, Henry Ayscough
and Son
Thompson, Millard
Type and Klog
Walker, Froke and Co.
Woolley, Jas., Sons and Co.
Wyleys and Co.

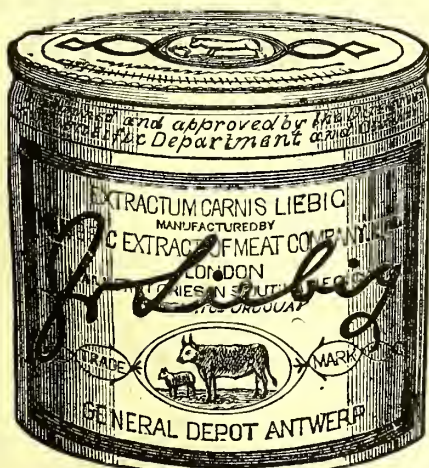
WINES AND SPTS.

Burrough, Jas.
Coleman and Co. (Wine)
Ingram and Royle
Macnair, A., and Co.
Metcalf, Theo. ("Coca Wine")
Robinson, B. (Orange)
Younger and Ridley ("Tem-
perance")

IMPROVED AND ECONOMIC COOKERY.

USE **LIEBIG**

Extracts sold as **BARON** Liebig's
have no connection with the Baron.



**COMPANY'S
EXTRACT
OF MEAT.**

Being the Finest Meat-flavouring Stock, USE
it for Soups, Sauces, and Made Dishes.

Efficient Tonic. Highly recommended as "NIGHT CAP" instead of alcoholic drinks.
ONLY SORT GUARANTEED GENUINE BY BARON LIEBIG.

A NEW TRADE FOR CHEMISTS!

MARION'S AMATEUR PHOTOGRAPHY.

NEW CATALOGUE, WITH ALL THE RETAIL PRICES,
FREE ON APPLICATION.

MARION & CO., 22 & 23 Soho Sq., LONDON, W.

GEORGE HOUGHTON & SON,
PHOTOGRAPHIC WAREHOUSE,
89 High Holborn, LONDON, W.C.

APPARATUS AND MATERIALS
OF ALL KINDS.

Porcelain, Glass, and Papier Maché Dishes.

CARD AND VIEW MOUNTS, ETC.

NEW WHOLESALE PRICE LIST for DEALERS ONLY
POST FREE ON APPLICATION.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s.
Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY.
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.

F. W. HART,

ESTAB. 1852.] Wholesale Manufacturer of [ESTAB. 1852.
CHEMICAL & PHOTOGRAPHIC APPARATUS,
Glass, Porcelain, Metal, and Wood Apparatus of all kinds.
"New Models" made for Inventors; Repairs, &c.

SILVER MEDAL, INVENTIONS EXHIBITION.
FACTORY AND WAREHOUSE—

8 & 9 KINGSLAND GREEN, LONDON,
One Minute from Dalston Junction, North London Railway.

FLY PAPERS! FLY PAPERS!!

**BLAKE & MACKENZIE'S
FLY PAPERS**

Are without exception the BEST in the market, and as a means of advertising are unexcelled.

PRICES.

Printed with your own Name and Address and Advertising Matter.

1,000	2,000	3,000	5,000	10,000
17/-	@ 16/-	@ 15/-	@ 14/-	@ 12/6

BLAKE & MACKENZIE,
MEDICAL LABEL PRINTERS,
School Lane, LIVERPOOL.

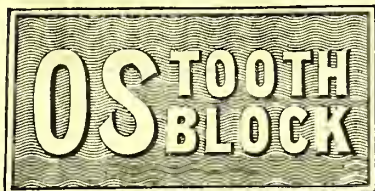
Chemists' Printing made a Speciality. Write for Samples.

SUPPLEMENT TO "THE CHEMIST AND DRUGGIST."

SATURDAY, AUG. 14, 1886.

i

THE BEST & SAFEST DENTIFRICE. **OSCAR SUTTON & CO.,** Preston, Lancashire.



REGISTERED TRADE MARK.

The following Testimonial from Mr. JAMES A. REID, Chemist and Druggist, Helensburgh, we quote by special permission: "Enclosed please find cheque in payment for the Tooth Blocks. I am highly pleased with their new form and extra inducements presented through the leatherette labels and chemist's own name stamped on each block. These give one special encouragement to keep prominently before an intelligent public what UNDOUBTEDLY IS THE GREATEST DENTIFRICE OF THE AGE."

No. 0.
Loose, without Boxes.

No. 1.
In Patent Metallic Boxes,
retail 1s.

No. 2.
In Crystal Caskets,
retail 2s. 6d.

OVER 1,000 TESTIMONIALS.

ROBERT GIBSON, MEDICATED LOZENGE
MANUFACTURER.

Carlton Works, Erskine Street, Hulme, MANCHESTER, and 1 Australian Avenue, LONDON, E.C.

EXPORTER OF

LOZENGES, BOILED SUGARS, & JUJUBES TO ALL PARTS OF THE WORLD.

SEE PAGE ADVERTISEMENT, JANUARY 15, 1885, No. 110.

SOLE AGENTS FOR UNITED STATES—WRIGHT & RICH, NEW YORK.

CORNS.



WARTS.

ROBINSON'S.

THE OLDEST AND MOST SUCCESSFUL.

1 doz. mounted on a handsome Illustrated Show Card, Retail, 6d. each; Wholesale, 3s 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case, with full directions for use.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue. Wholesale by all the Patent Medicine Houses, or from

B. ROBINSON, Manufacturing Chemist and Distiller, PENDLETON, MANCHESTER.



WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.

Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., 6 Worcester Drive, Club Moor, LIVERPOOL.

Can be obtained through any of the Wholesale Firms, or from the Proprietors, G. BARBER & CO., Club Moor, Liverpool.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKEY & SONS,

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,
For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S "POLYBRILLIANT" (Registered).

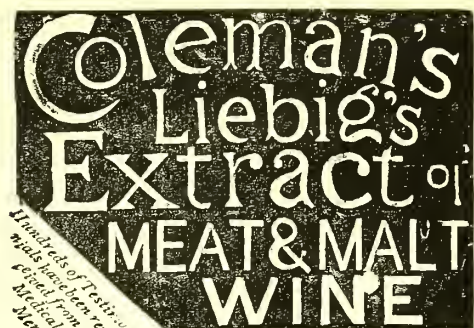
A Magic Pomade for cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Pastes.
Tins 1d., 2d., 3d., and 6d. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.



Is a Delicious Beverage and Tonic made from Port Wine, Liebig's Extract of Meat and Extract of Malt.

**NUTRITIOUS, STRENGTHENING,
STIMULATING,**
Flesh-forming, and Health-restoring.

SUITABLE FOR THE ROBUST IN HEALTH
AS WELL AS THE INVALID.

Important Unsolicited Testimonial from
M. K. HARGREAVES, Esq., M.D.

Wellington House, Bruce Street, Leeds.

Messrs. COLEMAN & CO. January 12, 1885.
Gentlemen,—I received sample bottle of your "Extract of Beef and Malt Wine." I find that it is the same as I used extensively over two years ago, and which I found of so much benefit that I have used it ever since in my practice, and numbers of my patients get it for themselves. I have great confidence in it as a tonic and restorative. It is also very useful in cases of consumption.

I wish you would send me one dozen bottles, and then will send you money by return. You can send it by rail by G.E.R. on to the G.N.R., and then it will come direct to Leeds.

I am, yours truly,

M. K. HARGREAVES, M.D.

Sold by all Druggists, Wine Merchants, and Patent Medicine Vendors in the United Kingdom, in Bottles, 2s. 9d. and 4s. 6d. each.

Ask for COLEMAN'S LIEBIG'S EXTRACT OF MEAT AND MALT WINE, and "see that you get it."

2/9 size, 30s. per doz. 4/6 size, 50s. per doz.

Carriage paid to any Railway Station in Great Britain.

Sample Pint Bottle sent free by Post on receipt of 33 stamps.

The following Preparations have also been introduced by the Manufacturers:—

Coleman's Liebig's Extract of Meat and Malt Wine (WITH IRON), in Bottles, 2/9 and 4/6 each.

Coleman's Liebig's Extract of Meat and Malt Wine (WITH QUININE), in Bottles, 2/9 and 4/6 each.

SOLE MANUFACTURERS—

COLEMAN & CO.,
GILDENGATE ST., NORWICH.

TRADE PRICES ON APPLICATION.

EIGHT PRIZE MEDALS AWARDED.

**GOODALL'S
HOUSEHOLD SPECIALITIES.**

Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & CO. No other is genuine.

**Goodall's
Baking Powder**

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**Goodall's
Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. and 2s. each.

**Goodall's
Custard Powder**

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in boxes 2l., 6d., and 1s. each.

**Goodall's
Blanc Mange Powder**

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's
Egg Powder**

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One penny packet will go as far as four eggs; and one sixpenny tin as far as twenty. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO
WHITE HORSE STREET, LEEDS.

A monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had post free on application.

TOWER TEA

A SAFE and PROFITABLE addition to a Chemist's Business.



The London Broken Tea ... 1/8
The London Two Shilling Tea... 2/-
The London 2/8 Assam Tea... 2/8

For Testimonials and References see the full page Advertisement which appears monthly in this Journal. Last insertion July 31, page 45.

THE GREAT TOWER STREET TEA CO., LIMITED.
LONDON.

For retail at

12½ gals. for £1, Cask free.
SPECIAL LINES FOR CASH BUYERS!!

TYRER'S
WORCESTER SAUCE,
YORKSHIRE SAUCE,
"BOROUGH" KETCHUP.
BEST VALUE THAT MONEY CAN PURCHASE.

Prices and Samples sent free of all cost by
PETER TYRER, The "Borough" Ketchup & Sauce Maker,
LONDON. S.E.

Telegram—PACIFICUS, LONDON.

PEARSE & WHEATLEY, 42 MINCING LANE, LONDON, E.C.
WHOLESALE TEA AND COFFEE DEALERS.

SPECIAL BLENDS OF TEA—No. 1, 1/1 | No. 2, 1/2 | No. 3, 1/4 | No. 4, 1/6 | No. 5, 1/9 | No. 6, 2/ | X, 2/4

Duty-paid parcels in 20-lb. caddies or 56-lb. ½-chests. Carriage paid on ½-chests. Terms, net cash.

FINE COFFEES (Roasted)—9d. | 10d. | 11d. | 1/ | 1/1 | 1/2 | 1/3 | Mocha, 1/4 | Finest Mysore, 1/5

In 28-lb., 56-lb., or 112-lb. bags; also supplied raw or ground. Terms cash, less 2½ per cent. discount.

THE NEW FRENCH COFFEE **CAFÉ FRANÇAIS** To sell at 10d., 1/1, and 1/4;
in ½-lb., 1-lb., and 1-lb. Cansisters.

FULL PARTICULARS, PRICE LISTS, SAMPLES, AND ANY INFORMATION ON RECEIPT OF TRADE CARD.

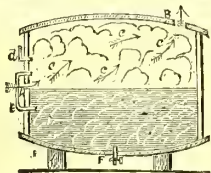
EXPORT DEPARTMENT.—Every variety of Tea or Coffee in bond. Shipped f.o.b. London against banker's credit or remittance. Samples, price current, and every information on application.

"laden with the scent of flowers,
And breath of odorous Spring."

SPINNER'S TEAS.

A company of Merchants are now selling through SPINNER & CO. the choicest Teas that come from India and China at 2/8, 2/4, 2/, and 1/8 a pound, in packets only. These are the perfection of Teas, and will please the most fastidious.—Agents wanted in every town and village. For Terms apply to SPINNER & CO., 60 Strand, London.

SPINNER & CO., London and Liverpool.



NEW METHOD OF MAKING VINEGAR,
BY THE REVOLVING APPARATUS
(Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274,
OR APPLY TO

PAUL ROTHERMEL,
105 (late of 27) LEADENHALL ST., LONDON

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.
A MONEY SAVING TEA. ABSOLUTELY PURE.
The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

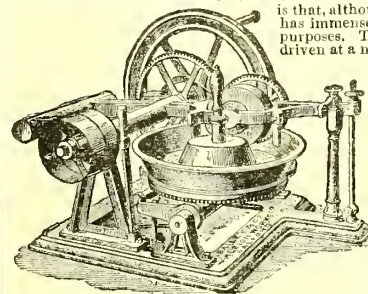
INTERMEDIATE TEA, 2s. per lb.
BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—
AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.
Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and
2, 4, 6, 8, 10, 11, and 12 BRADY STREET, LONDON.
P.O.O. payable at head office. Bankers, the National Provincial Bank of England.

BAILEY'S MINTON-WARE BOWL DRUG MILL.

(CARR'S PATENT.) FOR HAND OR POWER.
Will reduce Crystals to an impalpable powder. The chief feature of this machine is that, although it can be turned with ease, it has immense frictional power for levigating purposes. This is caused by the runner being driven at a much greater speed than the bowl.
Diameter of Bowl, 18 inches.
Price, £11.
Lists, &c., on application.



Mr. J. DUTTON, Rock Ferry, Birkenhead, says:—"The Mill you sent me answers admirably for powdering all kinds of Salts, and for many other things, such as Opium, Scammony, Soap, Almonds, Mace, &c. It also effects a great saving of time and labour in mixing various Powders, such as Tooth Powder, Lemon and Kali, &c., and proves a very useful apparatus in the shop."

W. H. BAILEY & CO., ALBION WORKS, Salford, MANCHESTER.

CONCENTRATED PATENT
PEPTONISED MILK
 AND
PEPTONISED MILK AND COCOA.

These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage the assimilation of which requires no digestive effort.

SAVORY & MOORE, LONDON.

Tins, 1s. 6d. and 2s. 6d. Obtainable Everywhere.

HARVEY'S SAUCE

For FISH,
STEAKS,
GAME,
 &c.

CAUTION.

Each Bottle
 of this celebrated
 Sauce, prepared from
 the *Original Recipe*, bears
 the well-known Label, signed—

Elizabeth Lazenby

This Label is protected by PERPETUAL INJUNCTION in Chancery of the 9th July, 1858, and without it none can be GENUINE.

Prepared only by **E. LAZENBY & SON, LONDON.**

And sold Retail by Grocers, Oilmen, Italian Warehousemen, &c., throughout the Kingdom.

CHUBB'S Best SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d.,
 and in hinged boxes, 8s. 6d., per dozen.

CHUBB'S Extra Scented VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. gross, and 2d. Boxes, 11s. gross,
 and in ½-lb. and ¼-lb. Packets, 10d. per lb.

CHUBB'S Pre- pared FULLER'S EARTH

In 1d. Boxes 5s. gross, and 2d. Boxes, 9s. gross, and in
 3d. and 6d. ROUND Boxes, 1s. 6d. and 2s. 6d. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from

CHUBB & CO., 29 OLD ST., LONDON, E.C.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

G F S
 SUPERIOR GUARANTEED SUPERIOR QUALITY.
 CONCENTRATED
 EXTRA STRONG.
 EXTRA PALE.
 SIZE

More economical than ordinary Size; more readily prepared for use.
 In 1 lb. Packets, in Boxes of 28, 56, and 112 lbs.

GEORGE FARMILOE & SONS,

Lead, Colour, and Varnish Merchants,

34 St. John's Street, West Smithfield, LONDON, E.C.

LIVER REMEDY.

PREPARED

DANDELION

(LEA & PERRINS').

MADE WITH PURE

**DANDELION ROOT & THE FINEST
 COFFEE.**

Sold in Tins, at 8d., 1s. 6d., & 3s. each.

CARBOLINE (TOOTH PASTE)

1s. 6d. per Pot.

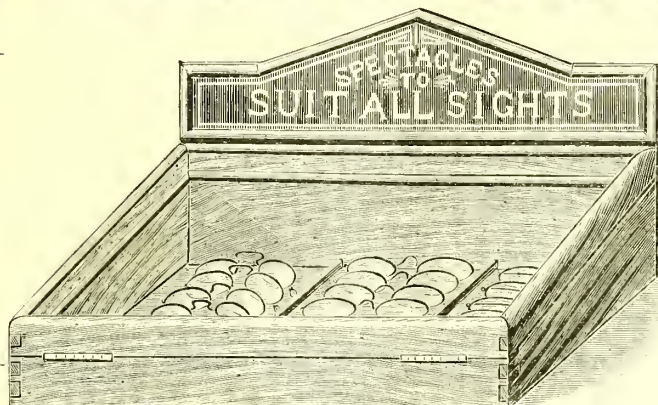
Best known Cleanser, Preserver, and
 Beautifier of the Teeth.

Supplied by the Patent Medicine Houses on the
 usual terms or the Makers,

GEORGE & WELCH, WORCESTER.

DARTON'S

Show
Cases



of
Spectacles.

CHEMISTS commencing the Spectacle business will find these Show Cases arranged with an assortment of Spectacles and Folders of all sights, to meet the requirements of purchasers. The quality and quantity may be varied to suit any class of trade at customer's wish. The Spectacle Show Case is of Solid Polished Mahogany, well made and finished, to stand any climate. A large Coloured Show Card is sent with each case.

The following is a summary of the contents of our £2 2s. Case, which bears a profit of 36/-, after paying for Show Case and Sight Tester, for which we allow 15/- if not required.

2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	s. d.
1 " Ditto, better quality, stout frames, Straw or Blue Steel	2/6 "	10 6
1 " Folders, Steel Frames and Placquets	1/0 "	5 6
1 " Leather Tuck Spectacle Cases	6d. each	2 6
1 " Folder Cases	4d. "	1 6
Show Case and Sight Tester		15 0
		£2 2 0

Our £3 3s. Case contains -

2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	s. d.
1 " Better quality ditto, Straw or Blue Steel, best White Glasses	3/6 "	15 0
1 " Folders, Steel Frames and Placquets	1/0 "	5 6
1 " Best Nickel Folders	3/6 "	16 0
1 " Spectacle Cases, Leather	6d. each	3 0
1 " Folder Cases	4d. "	1 6
Show Case and Sight Tester		15 0
		£3 3 0

Our £6 6s. Show Case contains -

2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	£ s. d.
1 " Ditto, better quality	1/6 "	6 6
1 " Ditto, better quality, stout frames, Blue or Straw Steel	3/6 "	15 0
1 " Light Straw Steel Spectacles	5/6 "	1 4 0
1 " Folders	1/0 "	5 6
1 " Ditto, Nickel	3/6 "	16 0
1 " Ditto, light grooved, Invisible	5/6 "	1 1 0
1 " Frog Mouth Cases	1/0 each	7 0
1 " Tuck Cases	6d. "	2 6
1 " Folder Cases	4d. "	1 6
Large size Show Case and Sight Tester		1 0 0
		£6 6 0

Our £10 10s. Case contains -

3 Dozen Steel Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	£ s. d.
2 " Ditto, better quality	2/6 "	1 1 0
1 " Light Straw Steel ditto, best White Glasses	5/6 "	1 4 0
1 " Invisible ditto, ditto, ditto	6/6 "	1 10 0
1 " Blue and Straw Steel Frames, with Pebble	7/6 "	1 13 0
2 " Tinted Spectacles, assorted colours	2/6 "	10 6
1 " Folders, Steel Frames and Placquets	1/0 "	11 0
1 " Ditto, Nickel and Shell Placquets	3/6 "	16 0
1 " Ditto, Light Invisible	5/6 "	1 1 0
1 " Best Morocco Frog Mouth Cases	1/0 "	7 0
1 " Leather Tuck	" "	2 6
1 " Folder Cases, best	" "	2 6
Large size Show Case and Sight Tester		1 1 0
		£10 10 0

LARGER ASSORTMENT OF SUPERIOR PEBBLE SPECTACLES AND FOLDERS, &c., £21.

"THE CHEMIST AND DRUGGIST," May 15, 1886, says:

"Messrs. F. DARTON & CO., of 45 St. John Street, West Smithfield, who have long made a specialty of supplying Chemists with spectacles and some scientific instruments, and have thus gained considerable experience as to the requirements of beginners in the business, have followed up this experience by fitting up a number of show cases with various stocks, enabling chemists to start in the trade with the minimum of risk and the maximum of facility. The cases are well made, and are quite ornamental, and the spectacles are sold at very moderate wholesale prices, presenting an opportunity for a rate of profit to which chemists are getting unaccustomed."

Send for fully Illustrated Catalogue and Descriptive Pamphlet, with Table of Sights, post free on receipt of Trade Card.

Please order in full, Darton's Show Cases of Spectacles, when ordering through your Agents.

F. DARTON & CO.,
WHOLESALE OPTICIANS, MAKERS TO HER MAJESTY'S GOVERNMENT,
45 ST. JOHN STREET, WEST SMITHFIELD, LONDON, E.C.
ESTABLISHED 1834. Telegraphic Address—"EXCEPTIONAL LONDON."

LANOLINE LIEBREICH.

WE beg to inform the Trade that we have transferred the Sole Agency of Messrs. Benno Jaffé & Darmstaedter, Lanoline Works, Martinikenfelde, near Berlin, for Professor Liebreich's Lanoline, and all Medicinal and Cosmetical Lanoline Preparations, to MESSRS. BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C., to whom we request all future orders may be sent.

86 Leadenhall Street, London, E.C.,
August 7, 1886.

GEO. HALLER & CO.

PETROLINA,

THE STANDARD PARAFFINUM MOLLE, B.P. 1885,
INDISPUTABLY the BEST PETROLEUM JELLY in the MARKET.

May now be had from all Wholesale Druggists in 1-lb., 5-lb., & 14-lb. tins, & in Kegs of 28 lbs., 56 lbs., & 112 lbs.

AT GREATLY REDUCED PRICES.
MANUFACTURED IN AMERICA BY THE BINGHAMTON OIL REFINING COMPANY.
London Agency—3 Coleman Street, E.C.

SAVORY & MOORE'S PEPTONISING PELLETS.

These Pellets will be found the most Convenient, Portable, Inexpensive, and Efficacious Peptonising agent that can be procured.

CONVENIENT:—Because no weighing, measuring, or addition is required. The Pellet is quickly soluble, and will keep much longer than any other preparation in the liquid or powdered form. Each Pellet weighs five grains, and will sufficiently peptonise for ordinary use a pint of milk in a quarter of an hour.

PORTABLE:—Because, being compressed, enough to peptonise several gallons of milk can conveniently be carried in the waistcoat pocket.

EFFICACIOUS:—Because of the rapidity and completeness of its action.

The Pellets are equally available for Peptonising Meat, Gruel, &c., &c.

This is the only form yet introduced which does not require a large excess of Alkali, and the nauseous taste of fully peptonised milk as hitherto prepared is entirely avoided.

FULL DIRECTIONS ACCOMPANY EACH PACKET.

BOTTLES, 2/6.

[2]

SAVORY & MOORE, 143 NEW BOND ST., LONDON, W.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

NORMANBY CHAMBERS, MELBOURNE,

AND

41 TEMPLE COURT, NEW YORK.

*Published every Saturday.*Subscription 10s. per year, payable in advance;
commencing from any date.

Post free to every country in the world. Single copies, 4d. each.

Supplied only to persons connected with the Trade.

Literary Contents.

	PAGE		PAGE
A Plea for an International Homœopathic Pharma- copœia	202	Foreign and Colonial	210
At the Counter	205	French Pharmaceutical News ..	202
Bankruptcy Reports	203	Gazette	195
British Medical Association:— Fifty-fourth Annual Meet- ing	196	Legal Reports	203
Correspondence:— The Photographic Trade; Medicine Chest Competi- tion; Aque or Aquan; Legal Notes	223	Medical Gleanings	212
Answers to Correspondents ..	221	Metropolitan Reports	193
Dispensing Notes; Informa- tion Wanted	222	Notes of Novelties (Illustrated)	204
Editorial Notes:— The Board of Inland Revenue Report	206	Obituary	213
Trade Mark Law; Investiga- tion of Medicines	207	Patents	213
Adelaide Jubilee Interna- tional Exhibition; Protec- tion in Germany; The Carlsbad Mineral Waters ..	213	Personalities	214
		Prices Current	218
		Provincial Reports:— Birmingham; Hanley; Liverpool; Manchester; Newcastle-on-Tyne	194
		Sheffield; Ireland; Scotland	195
		Scientific Notes	209
		The Aspiring Assistant	205
		The Best Hundred Books on Medicine and Surgery	199
		To a Timid Leech	202
		Trade Marks Applied for	214
		Trade Report: Mincing Lane New York	217
		Trade Statistics of Last Month	219

LABELS FOR PHARMACOPŒIA PREPARATIONS.—We mentioned last week that we should communicate with the Board of Inland Revenue in reference to the use of labels for Pharmacopœia preparations. It would certainly be an advantage to the public if chemists could use labels for such preparations as ipecacuanha wine, laudanum, spirits of nitre, sal volatile, paregoric, &c., on which should appear concise particulars as to the uses and doses of these preparations; and when bottles containing these medicines are packed in a medicine chest, such labels or a book of directions are almost essential. Unfortunately the indications which it is desirable to make render the medicines so labelled liable to medicine stamp duty. It is quite likely the Board of Inland Revenue would never prosecute in such cases, but the possibility deters many pharmacists from adopting the plan suggested. We have asked the Board of Inland Revenue whether they would permit the use of labels such as we have indicated for Pharmacopœia preparations exclusively; or, failing that, will they look over a set of labels which we will submit to them, with a view of sanctioning their adoption. We have received a reply stating that the Board "must decline to give any such general directions as you suggest, with a view to exempt from medicine stamp-duty preparations of the British Pharmacopœia, but that without prejudice to their eventual decision they are willing that you should submit for their consideration specimens of the labels which you propose to prepare, upon receipt of which the Board will express their opinion as to whether liability to duty would be involved by the use of such labels, as in other cases, by reference to the terms in which they may be couched."

We therefore ask pharmacists who may perceive the advantage to favour us during the coming week with their assistance in preparing such labels. Any Pharmacopœia preparation may be designated with a concise note of its use and dose, and such suggestions may be sent to us on post cards or otherwise. We will then have a set printed and submitted to the Board.

THE INTERNATIONAL HOMŒOPATHIC CONVENTION OF 1886 was held last week at Basle, in Switzerland. About forty physicians, including representatives of every European country except Spain, were present, and the number would have been much larger but for a change of locale at the last moment. The subjects discussed were the present position of homœopathy as contrasted with that of the last quinquennial convention, and this discussion was followed by papers on various subjects, including the first volume of the "Cyclopædia of Drug Pathogenesis," which was presented by Dr. R. Hughes. One of the papers read, advocating an International Homœopathic Pharmacopœia, by Mr. Wyborn, F.C.S., of London, was of general pharmaceutical interest, and we are glad to have the opportunity of publishing it. According to the reports submitted, homœopathy is flourishing more or less in every country, but its progress in the Old World is as nothing compared with that which it has made in the New. The United States now contains upwards of 10,000 practitioners, 14 medical colleges with about 1,000 fresh matriculants and 400 graduates annually; 51 hospitals, with 4,000 beds; 3 insane asylums, 48 dispensaries, 143 societies, 22 journals, and 33 pharmacies, all devoted to homœopathy.

MESSRS. DAY & SONS, veterinary druggists, of Crewe, offer a prize of 50*l.* for the best essay on "The best means of improving the Financial Position of Agriculture." The essay is not to exceed 18,000 words, and must be received not later than September 25, 1886. The usual conditions with regard to *noms de plume* are to be observed, and the adjudication is to be done by independent authorities. If no essay worth the 50*l.* shall be received, the amount is to be given to some agricultural institution. This is a good opportunity for some of our clever chemists who have studied agriculture. Eighteen thousand words would occupy ten or twelve pages of this journal; but the way to improve the financial position of agriculture can be expounded in less than a quarter of a column. If farmers would study for their occupation and work at it as other people have to do to make a living in these days, they would quickly improve their financial position. Three days' hunting and two days' marketing per week leaves hardly time enough to superintend operations with efficiency.

THE GOVERNMENT'S NEW TRADE JOURNAL.—We are informed by the Board of Trade that no final arrangements have yet been made with regard to the price and dates of issue of the new official commercial journal, *Tariff and Trade Notices*; but it is expected that the paper will shortly be on sale at the Government printers. A first number has already appeared, but its circulation has been strictly confined to the officials of the department. Its absolute publication waits for the new president to get settled in his office. The journal, we understand, will contain information about changes in the customs-tariffs of foreign countries, and it seems to be decided that not only those actually effected, but also alterations in contemplation, are to be reported. Decisions arrived at by foreign authorities with regard to the classification of merchandise, and other information regarding tariffs will also be given. Another feature of the journal will be the consular reports and "items" on particular classes and patterns of goods required in certain markets. In short the department seem strongly imbued with the idea that "something must be done," and there is no saying to what lengths their laudable energy may carry them, though they still cannot see their way to adopt the suggestion which has been pressed upon them from many quarters, that consuls shall be invited to give information as to the commercial standing of firms within their section.

THE BRITISH MEDICAL ASSOCIATION have been assembling in Brighton during the week, and a fair number of eminent representatives of the medical have been present at the meetings, but the general attendance has not come up to expectations. The President, Dr. Withers-Moore, F.R.C.P., delivered an opening address, in which the natural tendency of the medical profession to narrowness and exclusiveness was concentrated in a remarkable degree. In the first part of his address Dr. Moore uttered an undignified wail over the assumption that fees to medical men are not yet high enough. He is good enough to regret this fact, not for the sake of his profession, but on account of the patients, who, poor things, have no idea how much better off they would be if they would only double their payments to the doctor. Dr. Moore then proceeded to argue from a medical point of view, vigorously, but not very logically, against the higher education of women, and their admission to more general competition with men. Dr. Moore believes that the cultivation of women's brains will result in the degeneracy of the race, and will cut off the supply of Bacons, Goethes, and the rest. "If Goethe's mother had never married, would he have written Faust?" asks Dr. Moore; a style of argument by conundrum which we should have thought had been beneath the dignity of the position from which it was submitted. Ignorant parents produce great criminals sometimes, as well as great geniuses. The notion that we are to have no more poets or philosophers because a few women take university degrees is too ludicrous a proposition for serious discussion.

THE following is a first list of papers promised for the next meeting of the British Pharmaceutical Conference, to commence at Birmingham on August 31:—

1. Crystallised Aconitine. By J. Williams, F.I.C., F.C.S.
2. Kinological work in the Madras Cinchona Plantations. By David Hooper, F.C.S.
3. Certain Derivatives of Hymenodictyonine. By W. A. H. Naylor, F.C.S.
4. Note on Iodoform. By D. B. Dott, F.R.S.E.
5. Note on Compound Spirit of Ether. By D. B. Dott, F.R.S.E.
6. Note on Artificial Codeine. By D. B. Dott, F.R.S.E.
7. Lanolin. By A. W. Allen, F.I.C., F.C.S.
8. Notes on Trade Samples of Citrate of Iron and Quinine. By F. H. Alcock, F.C.S.
9. The Belladonna Liniment of the British Pharmacopoeia. By Francis Ransom.
10. Notes on the Estimation of Emetine. By H. W. Jones, F.C.S.
11. The Assay of Elaterium. By Francis Ransom and H. W. Jones, F.C.S.
12. A Chemical Examination of the Fruit of Daphnidium Cubeba. By J. Oldham Braithwaite and E. H. Farr.
13. A False Pareira Brava. By William Kirkby, F.R.M.S.
14. Proximate Principles of Erythroxylon Monogynum Leaf. By A. E. Tanner.
15. A Paper. By A. W. Gerrard, F.C.S.
16. A Paper. By Louis Siebold, F.I.C., F.C.S.

There are more papers known to be coming forward, but these are not yet definitely promised.

DIARY OF THE WEEK.

Tuesday, August 17.

Public sales of dysaltries at the Commercial Sale Rooms, Mining Lane, at 1 P.M.

Sale of Cadbury's cocoa butter at the Commercial Sale Rooms, Mining Lane.

Wednesday, August 18.

Public sales of spices at the Commercial Sale Rooms, Mining Lane, at noon.

Thursday, August 19.

British Dental Association.—Annual Meeting, Royal School of Mines, Jernyn Street, and Dental Hospital, Leicester Square. Address by Sir E. Saunders, F.R.C.S., President.

Public sales of drugs at the New Corn Exchange, Mark Lane, at 10.30. A.M.

Friday, August 20.

British Dental Association.—Annual Meeting. Papers, &c.; Annual Dinner.

Saturday, August 21.

British Dental Association.—Annual Meeting. Papers, &c.

LAST MONTH'S TRADE STATISTICS.

THE Board of Trade Returns for July show the following results:—

		<i>Imports.</i>	
		July, 1885	July, 1886
Total value	£31,597,616	£29,452,497	
		<i>Exports.</i>	
		July, 1885	July, 1886
Total value	£19,173,846	£18,483,374	
Foreign and colonial produce (partly estimated) ..	5,835,372	6,097,107	

Below are the details affecting drugs and chemicals:—

		<i>Imports.</i>		
		July, 1884	July, 1885	July, 1886
Chemical manufactures and products (unenumerated) ..	value £	152,455	116,673	125,300
Alkali .. ..	.. cwt.	7,682	5,771	6,484
.. ..	.. value £	8,056	5,301	5,169
Brimstone .. ..	.. cwt.	54,677	31,391	59,204
.. ..	.. value £	13,880	8,710	15,396
Nitre (nitrate of soda) ..	.. cwt.	202,420	65,510	137,718
.. ..	.. value £	98,963	33,352	60,352
" (nitrate of potash) ..	.. cwt.	28,921	10,062	12,963
.. ..	.. value £	26,489	8,473	11,794
Quicksilver .. ..	.. lbs.	285,155	32,225	334,317
.. ..	.. value £	22,408	2,615	32,470
Drugs, unenumerated ..	..	65,310	58,712	46,225
Bark, Cinchona .. ..	.. cwt.	11,060	13,197	12,071
.. ..	.. value £	97,938	24,044	64,374
Gum Arabic .. ..	.. cwt.	2,482	8,058	2,783
.. ..	.. value £	7,961	24,063	10,825
Lac, seed, shell, stick, and dye ..	.. cwt.	9,482	13,384	5,112
.. ..	.. value £	35,515	41,507	14,359
Spices— .. ..	..		
Cinnamon .. ..	.. lbs.	15,950	95,863	60,622
.. ..	.. value £	670	3,773	1,930
Ginger .. ..	.. cwt.	11,719	14,586	4,168
.. ..	.. value £	24,194	23,962	7,780
Pepper .. ..	.. lbs.	2,574,743	704,133	1,411,165
.. ..	.. value £	77,510	16,615	39,221
Dyes and tanning materials— ..	..		
Andine dyes .. ..	..	33,312	17,693	22,809
Alizarine .. ..	..	29,652	18,249	14,872
Other coal-tar dyes .. ..	..	448	194	—
Cochineal .. ..	.. cwt.	1,420	666	678
.. ..	.. value £	8,119	3,811	4,324
Indigo .. ..	.. cwt.	3,065	1,309	2,472
.. ..	.. value £	54,091	27,374	32,542
Oils— .. ..	..		
Cocoonut .. ..	.. cwt.	15,499	7,524	4,307
.. ..	.. value £	24,726	11,729	6,378
Olive .. ..	.. tons	1,649	1,276	1,511
.. ..	.. value £	69,884	52,438	55,885
Palm .. ..	.. cwt.	90,207	83,274	110,685
.. ..	.. value £	140,980	113,142	114,507
Petroleum .. ..	.. gals.	6,294,004	4,046,981	6,295,797
.. ..	.. value £	188,957	109,548	172,583
Seed, of all kinds .. ..	.. tons	753	563	1,851
.. ..	.. value £	23,223	16,291	40,810
Train, blubber, and sperm ..	.. tons	1,801	1,777	2,478
.. ..	.. value £	60,563	53,353	55,638
Turpentine .. ..	.. cwt.	89,258	35,591	61,442
.. ..	.. value £	105,355	47,795	78,208

Exports.

		July, 1884	July, 1885	July, 1886
British and Irish produce— ..	..		
Alkali .. ..	.. cwt.	477,871	549,809	445,699
.. ..	.. value £	158,340	162,912	134,176
Bleaching materials .. ..	.. cwt.	126,695	120,113	105,309
.. ..	.. value £	48,942	40,830	32,837
Drugs and medicinal preparations .. ..	..	69,259	63,126	73,867
Foreign and Colonial merchandise— ..	..		
Bark, Cinchona .. ..	.. cwt.	9,476	9,051	7,541
.. ..	.. value £	73,478	42,903	31,246
Chemicals (unenumerated) ..	..	26,027	16,203	18,443
Cochineal .. ..	.. cwt.	853	1,256	780
.. ..	.. value £	4,848	8,275	5,309
Cutch and gambier .. ..	.. tons	1,266	830	1,896
Gum, Arabic .. ..	.. value £	32,273	19,604	27,830
.. ..	.. cwt.	2,557	3,973	4,620
Indigo .. ..	.. value £	8,809	128,222	15,176
.. ..	.. cwt.	4,443	4,929	2,433
Quicksilver .. ..	.. value £	83,516	90,208	50,830
.. ..	.. lbs.	423,486	234,144	327,687
.. ..	.. value £	29,966	18,223	23,658

Metropolitan Reports.

STEALING SYPHONS.—John Ryder, 47, described as a general dealer, was charged before Mr. Bennett at the Westminster Police Court, on July 21, with having a patent "Idris" syphon in his possession supposed to have been stolen. Geo. A. Patterson, assistant with Messrs. Bradley & Bourdas, chemists, Belgravia, deposed that between half-past three and four o'clock on the previous day (July 20) the prisoner came into his employers' shop and asked whether the syphon produced was similar to that sold by his employer. Witness replied that it was. Prisoner said he had obtained it from a house in St. George's Square, Belgravia, and declined to leave it. He further added that he purchased it for 6*l*. Witness said the bottle being a patent one was worth half a crown. Witness requested the prisoner to wait a few minutes, but he declined to do so, and walked out of the shop followed by him (witness), who communicated the matter to a police constable. The prisoner gave his name and address to the constable, but then stated that he had purchased the bottle in Hanover Square. Constable Geo. Atkinson was called, and deposed that when he spoke to the prisoner he gave his name as John Walsh, and stated that he lived at New Street, Lambeth. He also told the officer that he bought it from one of the servants at 43 St. George's Square and paid 6*l*. for it. Mr. Thomas Howell Williams, head partner in the firm of Idris & Co., mineral-water manufacturers, deposed that the trade value of the syphon would be 2*s*. 9*d*. They could not be honestly sold for 6*l*. Mr. Bennett, upon this evidence, and Detective Bradbrook, A division, stating that he thought the prisoner would be known, remanded him in custody for a week. The prisoner was again brought up at the court on July 28. The evidence taken on the last occasion having been read over, prisoner pleaded guilty, and Mr. Bennett said he had no doubt whatever that the prisoner had not come by the syphon in a proper manner, and sentenced him to fourteen days' imprisonment with hard labour for the unlawful possession of the syphon.

DEATH FROM AN OVERDOSE OF ETHER.—On Friday last Dr. Diplock held an inquiry at No. 29 Chepstow Villas, Kensington Park Road, Kensington, respecting the death of Mary Sarah Wesselhoeft, aged 40. Mr. Walter Wesselhoeft said he was now residing at 29 Chepstow Villas, and was an American physician. The deceased was his wife. She had been in delicate health for a long time. By witness's advice she used ether for her attacks of asthma. In reply to the coroner witness stated that she took a small amount—a tablespoonful on a handkerchief; he was not at the house when his wife died. The deceased was well aware of the danger of using the ether. Mrs. Rosalie Tucker Gray deposed that she resided at 29 Chepstow Villas. Deceased was related to her and on Saturday afternoon came on a visit to witness. The deceased stayed in bed on Monday. She used ether first of all on Sunday night, and on Monday night asked for a large bottle, from which she poured some into a smaller bottle, and took it to bed with her. The Coroner: Have you any reason to suppose that she took it with the intention of destroying her life? Witness: Oh, no. On Monday night she was as bright and cheerful as ever. She then said to witness, "I shall be better and up to-morrow morning." The witness then stated that on Tuesday morning she found the deceased dead in bed. Mr. Frederick Robertson, surgeon, stated that when he was called the deceased had been dead for some hours. The atmosphere of the room was charged with the vapour of ether, and by the bedside, on a chair, there was a pint bottle of ether two-thirds full. Witness thought death was due to an overdose of ether during insensibility, produced by a kind of ether to which she was unaccustomed. The jury returned a verdict of "accidental death through the inhalation of an overdose of ether," adding, as a rider, "We are of opinion that it was unwise to have allowed the deceased to have so much ether at her command."

POISONING CASES.—On Tuesday, Eliza Wood, a married woman, was charged at Highgate with having attempted to commit suicide by taking a quantity of phosphor paste. Verdict was given, and the Bench remanded the prisoner for a week.—On the same day, Mr. George Collier, deputy-coroner for

East Middlesex, held an inquest at Spitalfields, on the body of Harriet Bird, aged 58, a nurse, and a single woman, who committed suicide by poisoning herself. William Sheath, of 87 Brick Lane, brother-in-law of deceased, said the latter had been staying at his house for four months. Deceased was in her usual health up till Saturday last. She was rather depressed on account of being out of a situation, but there were no pecuniary difficulties. After deceased had poisoned herself witness saw an empty bottle, which had apparently contained a liniment. Dr. Anglice said the cause of death was due to narcotic poisoning. The jury returned a verdict of *felo de se*.

MESSRS. MAY & BAKER'S employes took their annual excursion on Saturday, July 31, and held their beakfast this year at Sheerness. Most of them took the opportunity, as usual, of passing three days at the seaside.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

MR. ALFRED HOOD FOSTER has removed his business from 89 to 30 Navigation Street. On the expiration of a long lease held by him a great increase of rent was asked for his old premises.

THE business carried on by Mrs. McIsaacs at 167 Hagley Road has been purchased by Mr. Fereday.

A BRAVE CHEMIST.—Wm. Peter Chesterton, chemist and druggist, Hampton Street, saw a man snatch a purse from a lady's hand, ran after the man, recovered the purse, and took from the man a knife with which he is alleged to have been threatening to stab some one else who was trying to stop him. The alleged thief has been committed for trial.

HANLEY.

A CHEMIST'S APPRENTICE POISONED.—On August 4 Mr. J. West Jones (Borough Coroner) held an inquiry into the circumstances attending the death of Thomas Henstock, a chemist's apprentice. The father, a leather merchant in Hanley, stated that his son was an apprentice to Mr. Churchill, chemist, New Street, Birmingham. The deceased arrived at home on Monday, during the absence of the family, and at midday the servant found him sleeping in a chair in the breakfast-room. She saw him again in the evening, and as he was then in the same position she and another servant tried to rouse him, but as they failed to do so they became alarmed, and sent for a medical man. Mr. Spanton, surgeon, deposed that he was sent for to the deceased, whom he found insensible, and presenting appearances as if suffering from narcotic poisoning. All possible remedies were tried, but without avail, Henstock expiring about an hour after witness was called in. On making a post-mortem examination of the body, the heart and brain indicated death from an opiate. The father of the deceased said he had communicated with Mr. Churchill, but that gentleman was unable to throw any light on the matter. There was only one circumstance which witness could think of as being likely to account for his son's conduct, and that was that there might possibly have been some unpleasantness between him and a young lady at Bromsgrove, with whom he had been keeping company. He did not know, however, that such was the case. The jury returned a verdict to the effect that Henstock died from an overdose of morphia, but how administered there was no evidence to show.

LIVERPOOL.

MR. T. S. COCKING'S PATENT PILL-MACHINE is exhibited in the medical department of the Liverpool Exhibition. Messrs. Budden & Co., London Road, Liverpool, are the agents for it.

A SURGICAL CASE of much interest was heard at the Assizes on Friday and Saturday last by Mr. Justice Cave and a special jury. A sailor named Casey and his wife sued Dr. Imlach to recover damages for improperly performing an operation, known as ovariectomy, upon the female plaintiff while an inmate of the Women's Lying-in Hospital, Liverpool, without giving her any intimation of the nature or result of such operation. The plaintiffs were married in 1873, and at the time of the operation Mrs. Casey was forty years of age. The plaintiffs' case was that the operation had only been known twelve or fifteen years, and was one which should only be resorted to in cases of the gravest necessity, for the purpose of saving human life, after having informed the patient and her friends of its consequences, and further that in this case it was absolutely unnecessary. In the hospital books the defendant had entered the disease from which Mrs. Casey was suffering as "hematocoele, hematosalpinx." Mrs. Casey stated that her health had been fairly good up to the time of the operation, and that she had borne five children, but only one of them had been born alive. After previous medical treatment she went to Dr. Imlach, who, on December 8, 1884, made his first examination. He informed her (she said) that she would have to undergo an operation, which if done at once would not be serious, but if postponed for six months could not be made, and hers would be a "gone case." On December 18 the operation was performed by Dr. Imlach, which subsequently had the effect complained of. She remained an in-patient until December 31, 1884, when she returned home. The pain had disappeared, but her bodily health grew worse, and in twelve or fourteen months she again called on the defendant, and then for the first time learned the exact nature of the operation which had been performed. She then consulted Dr. Wallace, the senior physician of the Royal Infirmary, and by his advice wore a truss to avoid danger of rupture. In cross-examination Mrs. Casey denied that the defendant told her anything about the details of the operation. Dr. Wallace, whose evidence was taken upon commission, stated that such an operation as was performed upon Mrs. Casey was not necessary in cases of hematocoele or hematosalpinx. It should only be performed in extreme cases, and after prolonged observation on the part of the medical man performing it. In his opinion Dr. Imlach had not in this case sufficient opportunity of observation to justify the operation. Dr. Charles E. Steel, a surgeon in the same hospital as Dr. Imlach, Mr. James Moore Bennett, and Dr. Grimsdale gave evidence in support of the plaintiffs' case. For the defence Dr. Imlach said he had been in practice for the last fourteen years, and had devoted his attention to the diseases of women. In describing the plaintiff's case he said that after the examination he came to the conclusion that there was some risk to the plaintiff's life from the state he found her in, and consequently advised the operation. On December 15 the plaintiff came into the hospital, and on December 17 witness examined her very carefully, when the opinion he had formed previously was confirmed, every detail being entered in the hospital book. He was convinced she understood what the nature of the operation was going to be. He had a consultation upon the case with Dr. Lupton, another medical officer of the hospital, and they agreed that an operation was necessary. At the operation, the matron of the hospital, two nurses, and Dr. Davies, another medical officer, were present, and he thought another medical assistant. Dr. Lupton was now suffering from spinal paralysis, and could not give evidence. The witness then proceeded to describe the operation as performed by him, and contended that the operation was certainly a proper one to perform. The plaintiff made a very good recovery. She was discharged from the hospital, and on March 2 was going on well. It was not true that on that occasion he first told her the result of the operation. Mr. Lawson Tait, M.D., surgeon to the Birmingham Hospital for Women; Dr. Aveling, of the Chelsea Hospital for Women; Mr. Thomas Savage, surgeon of the Birmingham Hospital for Women, and several other eminent medical authorities supported the defendant's case; and Mrs. White, one of the nurses at the Shore Street Hospital, said that she prepared the patients for operation, and remembered telling Mrs. Casey what the consequence of the operation would be. The jury, at the conclusion of the defendant's case, without hearing counsel, said they were agreed upon their verdict. A verdict was at once returned for the defendant.

WARHURST'S ANNUAL PICNIC.—On Bank Holiday the employés of Mr. W. T. Warhurst, the pluralist chemist of this town, were entertained by him at a picnic at Ainsdale, near Southport. The weather, which in the morning was gloomy and threatening, became all that could be desired, and nothing occurred to mar the enjoyment of the company, who numbered upwards of seventy. Some good races and sports, including a cricket match, were brought off, and prizes awarded to the winners. In these games Mr. H. Jackson (Messrs. W. & H. Jackson, druggists' sundriesmen) occupied the staid and responsible position of judge, whilst Mr. J. R. Day, Lodge Lane, a brother piller, and formerly, if we mistake not, an assistant with Mr. Warhurst, would have been an excellent referee if anything had been submitted to him. After "high tea" the party returned to town, having passed what was unanimously voted a most successful and enjoyable day.

SALES BY AUCTION.—Not long ago it was here stated that there were singularly few changes in Liverpool. I still adhere to this view, though it is rather hard to have to chronicle in the same week two clearances. Dr. Grosskurth, who for some years had an open surgery in Mersey Street, and moved thence to Duke Street, has fallen a victim to the blight which that thoroughfare seems to cast upon our trade. (N.B.—Our good friends Ayrton & Saunders come in to point the moral as "the exception which proves the rule.") And this week the shop formerly conducted by Mr. Sutton (who died only last week, by the way) at Brunswick Road came under Messrs. Whitehead's hammer. There was a fair attendance of the trade, and Messrs. Buddin, G. Hughes, W. Jones, and Read were busy catching the worm. The fixtures, however, were very old, and of questionable value.

DISPENSERSHIP VACANT.—Mr. Wylde, who for so many years has been dispenser at the East Dispensary, having left, this comfortable if somewhat monotonous berth is vacant. Hours, 9 to 5; salary, 42s. per week. Apply by Tuesday, August 17, to the Secretary, at the office, Moorfields.

THE NORTH-WESTERN BANK v. GREEN AND TAYLOR.—On Saturday last, before Mr. Justice Smith, the plaintiff bank sought to recover possession of thirty-eight casks of borax, upon which the defendants, who are warehouse-keepers in Liverpool, claimed a lien for arrears of rent due to them by the owner of the goods, a Mr. Fleming. Mr. Bingham, Q.C., and Mr. Collingwood Hope were counsel for the plaintiffs, and Mr. French, Q.C., and Mr. Mulholland appeared for the defendants. It appeared that Mr. Fleming went to the bank and obtained an advance on the goods, which he had warehoused with the defendants. The plaintiff bank required possession of the goods, but the defendants refused to hand them over until the lien for rent had been satisfied. His lordship gave judgment for the defendants with costs.

MANCHESTER.

TRAP ACCIDENT.—Mrs. Bagshaw, wife of Mr. C. W. Bagshaw, chemist and druggist, 106 Brunswick Street, Manchester, was severely injured on Monday last by being thrown from a trap. Mr. Bagshaw, with his wife and brother, were driving along Great Ducie Street, and when opposite the Assize Courts the trap was stopped, and the two brothers got out to make a purchase, leaving Mrs. Bagshaw in the vehicle. Immediately afterwards the horse took fright, and dashed up the Bury Road. Mrs. Bagshaw, who was naturally in a state of great alarm, held on as long as she could, but she was eventually pitched out on to the road with great force. Sergeant McEvoy at once rushed to the lady's assistance, and had her removed home in a cab, when, on medical assistance being procured, it was found that, in addition to one of her legs being broken, she had sustained a severe shock to the system.

NEWCASTLE-ON-TYNE.

MR. THOMAS STAMP ALDER, chemist and druggist, of this town, has organised a day's excursion for the poor children and poor old people of the locality. Next Thursday is fixed for the trip, and if the good wishes of all his brother-chemists can ensure a fine day, Mr. Alder's party will have grand weather. Nine or ten steamboats are to be chartered, and these will carry 3,000 children and 1,000 old people;

the latter, it is said, averaging seventy years of age. To other infirm old people, who are unable to accept the invitation to the excursion, parcels of groceries, tea, and tobacco are to be sent. The trip will be down the Tyne to South Shields pier: it is exciting much interest in the Northumbrian capital.

SHEFFIELD.

EXCELSIOR.—Mr. H. G. Watson, chemist and druggist, Moorfields, has obtained the L.S.A. qualification. He intends continuing his present business until he has passed the M.R.C.S., when he will quit the prosaic ranks of pharmacy for the more alluring paths of medicine.

POISONINGS.—Last Saturday a spinster named Gallimore, 67, ended her troubles by swallowing laudanum during a fit of insanity. The poison was in an ordinary spirit bottle, and had no label upon it.—A woman named Sherdon, 26, committed suicide on the 6th inst. by swallowing rat poison, which had been left in the house by her husband after using it in discharge of his professional duties as a ratcatcher. Medical assistance was at once procured, but she died in a very short time after suffering great agony.—On Tuesday a grocer named Short attempted suicide by swallowing laudanum. He had had a week's heavy drinking, which failed to give him satisfaction, and he tried to mend matters by having resort to the laudanum-bottle. The vigorous treatment which followed at the Infirmary may have the effect of restoring his equilibrium.

IRELAND.

PHARMACEUTICAL SOCIETY OF IRELAND.—There was no Council meeting for August, as not enough members presented themselves to form a quorum.

THE IRISH PHARMACY ACT.—We gave a brief report last week of two prosecutions by the Pharmaceutical Society of Ireland at Kells. The following is a fuller account. The first case was brought against Mr. George Cooney, ironmonger, of Kells, for three offences against the Act. The first charge was of having sold poisons, not being a registered chemist and druggist, on the 22nd July last—namely, tartar emetic and laudanum. The second charge was not having the packet labelled poison, with the name and address of the seller, and selling same to unknown persons, and not entering it in the register, which should be kept for that purpose; and the third charge was for not having it entered. The minimum penalty for the first offence is 5*l.*, and for the second and third offence any sum not exceeding 5*l.*

Mr. John C. Sullivan, solicitor, Navan, appeared for the Society, and handed in the Act dealing with the case, also the *Dublin Gazette* to be marked; and after explaining the several sections of the Act dealing with the case, produced Mr. William Henry Ashe, the Society's inspector, who said that on the 22nd July last he entered the shop of Mr. Cooney, asked for half an ounce of tartar emetic and one ounce of laudanum, and paid for it.

Chairman—Is it analysed?

Witness—No; this is the packet—handed up.

Mr. McCarthy—The question is, is it poison?

Witness—I can't tell you; I can't prove it.

Mr. Sullivan—Mr. Cooney sold it as such and marked it.

Mr. McCarthy to Mr. Ashe—Have you ever had a prosecution before?

No; but the Society had.

Mr. Cooney—I will leave the matter in the hands of the bench.

The other two charges were gone into and proved.

M. Cooney—I was not aware it was an offence.

Mr. McCarthy—I don't think there is a separate penalty; the two cases are embraced in the one charge.

Mr. Sullivan—I don't want to treat it as a second offence.

Mr. McCarthy—It does not say it is separate.

Chairman—If we diminish the fine would you take it?

Mr. Ashe—I could not.

Mr. McCarthy—Mr. Cooney is selling this since 1875; he was never warned, and was allowed to go on for eleven years.

A fine of 5*l.* was inflicted for the first offence.

The Chairman recommended a memorial to be sent to the Society to reduce the fine to 1*l.* On the application of Mr. Sullivan 1*l.* was allowed as costs. A fine of 1*s.* and costs of

court was inflicted in each of the last two charges, 1*s.* 3*d.* of the fine to go to the persons bringing the party to justice, the remainder to the treasurer to be applied to the purposes of the Act.

The same Society also prosecuted Miss Leonard for selling corrosive sublimate, not being duly licensed. The charges two and three preferred against Mr. Cooney were also brought against Miss Leonard, and Mr. Ashe proved the several offences.

Mr. P. Charles, Miss Leonard's manager, appeared, and said he would leave the matter in the hands of the bench; the commodity was sold in total ignorance of the law.

The same fine as in the case of Mr. Cooney was inflicted, with the recommendation to have same reduced to 1*l.*, and the same order as to the appropriation of the fines in the last case was made.

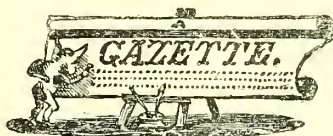
SCOTLAND.

ABERDEEN.

SUICIDE BY A WOMAN.—On the 6th inst. a woman named Mary Wiseman, Porthill Close, was found lying in her own house in an insensible condition. She had taken laudanum, evidently with the intention of committing suicide. A letter written by the woman, and left to be read, indicated that she had had a difference with her husband. Two doctors endeavoured to restore her during 8 or 9 hours, but she eventually succumbed.

CUPAR.

AN ORNAMENTAL ANALYST.—At a general meeting of Commissioners of Supply at Cupar, on August 3, the Clerk stated that as Dr. Milne, the public analyst, has virtually no work to perform, a letter was written to the Secretary of State for Scotland, requesting permission to dispense with his services. The Secretary, however, refused. The committee recommended the Commissioners to continue the appointment of Dr. Milne at a salary of 5*l.* per year. Admiral McDougall said that really as the analyst had no duty to perform it was an honorary appointment. He had reason to believe that if Dr. Milne did not accept the office they would have no difficulty in getting an analyst for the salary offered. He also pointed out that Dr. Milne charged very high fees for any duty he did. The chairman thought the salary was quite sufficient, and the recommendation was approved of.



FIRST MEETING.

DAVIDSON, HENRY, Barnsley, drysalter. Aug. 19. Official Receiver's Office, Barnsley.

RECEIVING ORDER.

MOORE, GEORGE, Leeds, mineral water manufacturer (lately trading with S. Kirk as Kirk & Co.). Aug. 24. Leeds.

ADJUDICATIONS.

BRAY, EDMOND SELWYN, Smart's Buildings, Holborn, mineral water manufacturer.

MOORE, GEORGE, Leeds, mineral water manufacturer (lately trading with S. Kirk as Kirk & Co.).

NOTICE OF DIVIDEND.

BRAITHWAITE, DANIEL, Barrow-in-Furness, ginger beer manufacturer. First and final div. of 1*s.* 6*d.* Aug. 13. Official Receiver's Office, Barrow-in-Furness.

ORDER MADE ON APPLICATION FOR DISCHARGE.

GRANT, JAMES LONGTON, medical practitioner, discharge suspended for 18 months.

SCOTTISH BANKRUPT.

SEQUESTRATION.

SMITH, JOHN, carrying on business as John Smith & Co., manufacturers of essence of coffee, at Lower Gilmore Place, Edinburgh. Creditors to meet in Dowell's Rooms, Edinburgh, August 13, at 12 o'clock. David Murray, solicitor, 12 Dublin Street, Edinburgh, agent.

PARTNERSHIPS DISSOLVED.

FIELDING & HIGGINBOTTOM, New Mills, Derbyshire, manufacturing chemists.

WARD & KING, Southampton, surgeons.

British Medical Association.

FIFTY-FOURTH ANNUAL MEETING.

THIS year the Association has met in Brighton for the second time in its history. It is thirty-five years since it last met there, and then there were scarce 1,200 members on the roll; now there are 12,000, and the institution still flourishes. The attendance this week, in spite of an attractive programme, has fallen off somewhat, about 400, including a number of distinguished foreign and colonial visitors, having signified their intention of being present. Nevertheless, there was an animated scene in the North Drawing-room of the Royal Pavilion at 12.30 P.M. on Tuesday, when the Mayor of Brighton in his official capacity received the members of the Council of the Association, and half an hour later the company moved into the banqueting room for luncheon, at which the Mayor presided, and was supported on the right by Dr. Edwards, President of the Association, and the Right Hon. W. T. Marriott, M.P., and on the left by Dr. Withers Moore, of Brighton (President-elect), and Alderman David Smith, M.P. After luncheon and the loyal toasts, the chairman proposed "Continued prosperity to the British Medical Association," which was responded to by Drs. Edwards, Foster, and Withers Moore. Sir B. W. Foster also proposed the Mayor's health, the response to which concluded the toast list.

THE FIRST GENERAL MEETING

of the members was held in the dome a little after 3 P.M. Dr. Edwards presided until, in fitting terms, he thanked the members for their courtesy to him during his year of office. He then introduced his successor, Dr. Withers Moore, who was very heartily received. On taking the chair Dr. Moore welcomed his professional brethren to Brighton, and expressed the hope that the meeting would be as successful a one as its predecessors. After some friendly congratulations a satisfactory report was read and adopted, several critics commenting upon the subject matter of it; and one of them wished to know the names of the contributors to the journal who had got 1,598l. 8s. divided amongst them. He was as quietly disposed of as if he had asked the question in Bloomsbury Square. A motion to pay the travelling expenses of members of council was negatived. The meeting then adjourned until 8 o'clock in the evening, when there was a much larger attendance of members and their friends. Dr. Withers Moore presided. In the name of the Association Sir B. WALTER FOSTER heartily welcomed Dr. M. S. Davis, of Chicago, one of the founders of the Medical Association, and the President-elect of the next International Medical Congress. This pleasant duty done, Dr. MOORE rose to deliver his

PRESIDENTIAL ADDRESS.

After thanking the members for placing him in the honourable position which he occupied, and referring to the previous meeting in Brighton, the President commented upon the changes which have occurred in the medical profession during the period. Some pertinent references were made to medical fees, which he considered too low, and that it would be better for patients as well as doctors if they were higher; because if they were, doctors would be able to take fewer patients and give them more attention. The subject which he had selected to speak upon specially was the

Higher Education of Women,

with special reference to lady doctors. The question, he said, was, Is it for the good of the human race, considered as progressive, that women should be trained and admitted to compete with men in the ways and walks of life from which, heretofore (as unsuited to their sex), they have been excluded by feeling and usage, and largely, indeed, by actual legislation? Will it be well that we should have female doctors and divines, lawyers, mathematicians and astronomers, professors, publicists, and Ministers of State? He contended that the higher education of women or the development of their genius unfitted them for performing the duties and functions for which they exist, and proceeded to set forth more fully the facts and arguments upon which he based his contentions. He disclaimed all covert intention

of proving that women are unfitted for the practice of medicine. Music, painting, poetry, literature, and cookery, he said, have been as free to women as to men; and yet a Beethoven, a Titian, a Shakespeare, a Bacon, or a Soyer, has never yet appeared in their midst; and we may rest assured that the day is far distant when a Hippocrates, a Harvey, a Haller, or a Hunter, will adorn the ranks of the lady doctors. Be this as it may, we are [citizens] first, and medical men after; so that whatever is proved to be for the greatest good of the greatest number, we, as true philanthropists, will cheerfully acquiesce in, even to the sharing of the practice of our profession with our sisters. Taking as his starting point "the progressive improvement of the human race," the President went on to cite facts and to quote authorities in support of his contention that it is unwise to encourage the competition of woman with man in the severe brain-work or higher studies which make great demands upon the vital powers. He pointed out that of all activities none seemed so antagonistic to reproductiveness as brain-work, involving as it does a large outlay of vital capital, and dwelt upon the necessity of the maintenance of thorough health in the female from the time of her entering upon the period of womanhood. The close attention required from the mother during the first ten years in the lives of her offspring, and the after-effect on the children of this period of training, also received attention; and when he had quoted numerous statistics showing the destruction of nervous energy by persistent mental work on the part of girls and women, he continued: My argument may be summed up very simply. Excessive work, especially in youth, is ruinous to health, both of mind and body; excessive brain-work more surely so than any other. From the eagerness of woman's nature, competitive brain-work among gifted girls can hardly but be excessive, especially if the competition be against the superior brain-weight and brain-strength of man. The resulting ruin can be averted—if it be averted at all—only by drawing so largely upon the woman's whole capital stock of vital force and energy, as to leave a remainder quite inadequate for maternity. The laureate's "sweet girl-graduate in her golden hair" will not have in her the fulfilment of his later aspiration; his

May we see, as ages run,

The mother featured in the son.

In the prophet's words, "She will not have strength to bring forth;" her reproductive system will more or less have been atrophied; she will have lost her womanhood's proper power." This subject was enlarged upon somewhat, and after maintaining that woman was man's helpmeet—heart not head—he clinched his arguments by a quotation from Longfellow, and "King Solomon's eulogy for the happy home-queen—the happy wife," and with these the address was concluded amidst loud applause.

A vote of thanks was accorded to the President on the motion of Dr. Davis, of Chicago.

Thereafter a motion by Mr. John Marshall, to the effect "That notices of births, marriages, and deaths occurring in families of members of the Association shall be published in the *British Medical Journal* without charge" was negatived, and the company adjourned to the galleries, where refreshments were served.

THE ANNUAL MUSEUM.

For the last twenty years a feature of the meetings of the Association has been the exhibitions of medical substances, appliances, &c. These exhibitions have been attended with varied success. The Association charges nothing for space, only retaining the right to determine what may and what may not be exhibited. Past experience has proved that these annual exhibitions have been highly appreciated by the members and exhibitors, of whom a large number are pharmaceutical firms, who have always placed interesting and, in many cases, novel articles on view. The museum is arranged in the Corn Exchange adjoining the Royal Pavilion, and is divided into three sections. Section A containing samples of food, drugs, hygienic and sanitary appliances, a specialty being made of all kinds of prepared, peptonised, and other compound nutrients. Dr. Mackey (Brighton) is honorary secretary of this department, which occupies the eastern half of the building. Section B occupies the centre of the building, and is devoted to new books, medical and

surgical instruments, and appliances, galvanic and other batteries, and apparatus. Dr. Whittle (Brighton) is hon. secretary. Section C occupies the western side of the room, and comprises anatomical and pathological specimens, casts and models, microscopes, and microscopical preparations. Mr. D. W. Giffard (Brighton) is hon. secretary.

The arrangements are on the whole excellent, and a carefully compiled catalogue has been prepared for the use of visitors. It may be said, however, that for the first two days, at least, the attendance was very disappointing to exhibitors, and occasionally the large hall showed an utter want of animation. It was also noticed that a large portion of the visitors were non-professional people who were attracted by the prettiness and the newness of the objects. Should there be no better encouragement to exhibitors next year, the consequence will be that the provincial members of the Association will lose this excellent opportunity of inspecting the latest productions—medical, mechanical, and scientific. In reporting on the exhibits we follow the order given in the official catalogue, and therefore begin with

The "Aylesbury" Dairy Company, 31 St. Petersburg Place, W., who show koumiss and other milk beverages. Those of them which contain casein have it in a well-divided condition, and the sparkling preparations are very palatable.

Ambrecht, Nelson & Co., 23 Duke Street, Grosvenor Square, W., also show koumiss and coca wine. The latter enables the firm to display some excellent coca leaves, which impart their odour to the atmosphere in the vicinity of the stand. A handbill in six languages informs us that the preparation is "for fatigue of body and mind."

Felton & Son, Albemarle Street, W., devote a small space to an effective show of specialité lime juice, a kind which has a pleasant, non-musty flavour, and is free from alcohol. It makes a refreshing drink with unsweetened water.

Aërated and mineral waters were represented by the well-known waters of J. Schweppe & Co., also by the new mineral water, "The Kronenquelle," exhibited by W. Schacht & Co., 26 Finsbury Pavement, E.C. This is a natural lithia water, of a non-aperient nature, and takes rank amongst the specifics for gout. The Apollinaris Company show Friedrichshall water, which appears to hold its own amongst many rivals.

Following these are a large number of malt preparations and food. M. Hoff, of Hamburg, makes a display of the malt extract beverage, and the Maltine Manufacturing Co., Hart Street, W.C., have an excellent exhibit of Carnrick's beef peptonoids and other preparations as well as a full series of maltine and its compounds, which are now "Carnrick's." The Kepler malt is also exhibited, but will be afterwards referred to. The latest comers into the malt field, the Phoenix Chemical Works Co., Maryhill, Glasgow, exhibit Paterson's extract of malt, and emulsion of the same with cod-liver oil. This extract is remarkably pale in colour, and appears to possess full diastatic properties. Beside this exhibit is one by, perhaps, the oldest maker of diastatic malt extract, viz., Loefflund. In addition to the older preparations, this firm shows Kindermilch, a compound of milk and wheat extract, a preparation which is exceptionally rich in tissue and bone-forming material, and being partially peptonised is readily assimilated by children. G. Mellin, Stratford Street, Peckham, shows lacto-glycose, apparently a combination of Mellin's food (which is also shown) and cow's milk in a peptonised condition. The preparation is quite soluble in water to form a milky mixture. Nestle's milk food has so long been in the market, and is so well-known as a substantial food stuff for children and invalids, that we need only mention that the maker had an excellent display in the museum. Following this exhibit was one of considerable importance to the medical profession, viz., that of G. Van Abbot & Son, 5 Princes Street, Cavendish Square, W. This consisted principally of bread and biscuits for diabetic patients, and many other starch and sugar free dietetic preparations. Necessarily the manufacture of these calls for considerable skill and careful working in order to get rid of the objectionable constituents and to produce articles of diet as near as possible like ordinary kinds. This the firm has succeeded in doing, and they hold the field in this department so far as the museum is concerned. They also exhibit medicated biscuits, beef juice and extracts, and an ivory jelly (Cullard's) extracted from ivory, and resembles calf's feet jelly. Brand & Co., 1 Little Stanhope Street, Mayfair, had a large and varied

exhibit of their preparations for invalids, peptonised as well as of the older stamp.

Messrs. Mottershead & Co., Manchester, exhibit Benger's digestive preparations, to which we have previously referred; and a new liquid rennet which contains no brine, and has been introduced for the preparation of whey. The firm also shows constant current batteries, and other similar apparatus for medical use.

The next exhibit, by Allen & Hanburys, is one of the most varied and best displayed in the museum. It includes their specialities; new remedies, pharmaceutical preparations, pure alkaloids, chemicals, &c.; and apparatus and accessories for medical and surgical purposes. The exhibits of fluid extracts and effervescing preparations are very complete. The latter show very uniform granules, which dissolve with well-sustained effervescence.

Amongst the granular preparations we observed effervescing cocaine hydrochlorate. This contains $\frac{1}{20}$ th of a grain of the salt in one drachm, and is introduced as a pleasant form for administering the remedy in sea-sickness.

Brynin, or liquid malt, which the firm has the credit of introducing, has been taken advantage of for the preparation to two digestive solutions—byno-pancreatin and byno-pepsin. The Cynin has the property of retaining the activity of these ferments unimpaired for a much longer period than a mere aqueous or weak alcoholic solvent.

Amongst other noteworthy preparations were capsuled ointments, a form in which ointments made with animal fats may not only be kept for a long period without fear of rancidity, but as each capsule contains a weighed quantity, an exact dose of such as mercurial ointment is insured. The suppositories and other preparations of that nature were good specimens of the pharmaceutic art. The exhibit included many novelties, and the apparatus and instruments shown were very attractive. The firm has compiled a pamphlet of brief notes descriptive of their exhibit, which is beautifully printed by Field & Tuer.

Savory & Moore had also a carefully arranged exhibit of their specialities. Besides these they showed new chemicals such as sparaine sulphate, iodol, terpin hydrate, salol, resorcin, &c., most of which were in exceptionally fine crystals. From the fact that the Museum Committee desired to have a special exhibit of peptonising preparations and nutrient foods, this exhibit contained all the specialities with which the name of the firm is associated. Special amongst these was keratin coated pancreatin pills, which are not dissolved in the alimentary canal until they reach the intestinal track. Medicated gelatin discs for hypodermic and ophthalmic use were shown in great variety, and also in small pocket-cases with hypodermic syringes. Akin to the discs are the medicated lamels, which are small sheets covering a surface of about six square inches, each dose being about half a square inch. The lamels are medicated with various common remedies, and as a dozen do not occupy a greater space than a letter, a complete medicine-chest can be carried about in the pocket. The exhibit also included a complete series of the new drugs, chemicals and preparations of the British Pharmacopœia. We noticed also a new aperient, "Fruit Confection," which is as palatable as a fruit preserve.

In the considerable space at their disposal, Oppenheimer Bros. & Co. were contented to show half a dozen of their stomachic and hepatic solutions; these were liq. euonymin et pepsin co., liq. euonymin et bismuthi co., liq. euonymin et cascarae sagradae co., and peptoporcine or fluid pepsine. These combinations are extensively used, undoubtedly euonymin is much more active in the fluid than in the solid state, and the makers have succeeded in producing stable and agreeable solutions.

Burgoyne, Burbidges & Co., in addition to an exhibit of Parke, Davis & Co.'s specialities, exhibit Dr. Koch's meat peptone and maltopepsyn. The former is in several forms, the more important being a soft transparent extract, which dissolves readily in water, and is quite free from burnt taste. In solid state as lozenges, peptones are now being largely used by athletes, and Koch's preparation is a very palatable one. Maltopepsyn is a digestive preparation consisting of pepsine, pancreatine, acid lactophosphate of lime and dried malt extract. It is prepared by Hazen Morse of Toronto, Canada.

John Sellars, 9 Farringdon Road, E.C., exhibits Dr. Hogh-

ton's digestive ferments in the form of powders and pills, and also peptic chologogue pills, quinine, &c.

As agents for Jansen's preparations Walter, Troke & Co., 82 City Road, E.C. exhibit pepsin and beef peptone by that maker, also an active glycerine of pepsin made by themselves.

The Kreochyle Company, 9 Farringdon Road, E.C., exhibit the speciality which gives a name to the firm. The advantage which is claimed for this liquid meat is that it contains the albumen, as well as other nutritive constituents, of butcher meat, in a soluble or uncoagulated form. At their stand they give a practical demonstration in proof of this fact, and undoubtedly the Kreochyle, in clear solution with cold water, became quite turbid after boiling. The two varieties of boroglyceride are also exhibited here.

Edge Brothers, Limited, 17 Farringdon Road, E.C., in addition to other dietetic preparations, have a good display of their Lion essence of beef, which is put up in glass bottles (the special feature).

George Mason & Co., Limited, 417 King's Road, Chelsea, whose striking trade-mark of a reverent-looking sister of mercy is displayed at railway stations all over the kingdom, exhibit a well-arranged assortment of their specialities for invalids. The firm makes it their object to supply their preparations in small quantities for the convenience of poor patients. Their essence of beef is an amber-coloured jelly, very palatable and quickly assimilated. Meat lozenges are put up in vest-pocket boxes. These preparations retail at 9d. for the smallest size.

The Liebig's Extract of Meat Company, and Johnson Fluid Beef Company, have exhibits of their specialities. The fluid beef made by the latter company is largely consumed as a beverage in North America, and we believe that the company contemplate opening bars in London for its sale.

Schmoele, Rhodes & Co., 131 Wool Exchange, Coleman Street, E.C., exhibit Cibil's beef extract, fluid and solid. The fluid extract is quite free from burnt taste. According to Professor Atfield's analysis it contains about 40 per cent. of solid matter, over one half of which is partly peptonised nitrogenous bodies.

Mackey, Mackey & Co. showed a full line of their specialities.

Parke, Davis & Co., Detroit, Michigan, are represented by a varied selection of their specialities, including fluid extracts, concentrations, pharmaceutical preparations, apparatus, &c. Concentration is the name which the firm gives to such bodies as euonymin and podophyllin, and which are commonly termed resinoids. To this class of preparations, as well as fluid extracts, the firm has given great attention, and it is well known that by their enterprise several important therapeutic agents have been thoroughly investigated and added to our materia medica. Their exhibit also included empty gelatine capsules, and some remarkably fine specimens of cocaine and its salts. Semple's atomizing inhaler was also exhibited. This consists of a jar in which the medicated fluid is finely atomized by a blast of air propelled by a rubber ball. A nose-tube is attached, and the fine spray is inhaled either through the mouth or nostrils. It is reported on high authority to be a very efficient apparatus.

T. & H. Smith & Co., of Edinburgh, exhibited opium alkaloids and derivatives. Aloin, of a remarkably brilliant yellow colour, and jalap and scammony resins exceptionally light in colour.

T. Christy & Co., Fenchurch Street, had on show a carefully selected exhibit of new and rare drugs, conspicuous amongst them being various species of strophanthus and two arrows poisoned therewith. As agents for the firm Lloyd Bros., Cincinnati, they also exhibited concentrated and eclectic preparations.

Corbyn, Stacey & Co. had a very large display of pharmaceutical preparations and specialities. Chief amongst these was a sparkling coca wine resembling champagne, and put up in champagne bottles, each large bottle being equivalent to a grain of cocaine. Recently the firm secured a large shipment of fresh bael fruit, the pulp of which they have converted into a highly palatable confection, or preserve. Fresh bael fruit differs from the dried in being aperient rather than astringent. Gelatine preparations, such as capsules and coated pills, are a feature on this stand, as are also oleate unguents, which are combinations of various metallic oleates

with lanoline. Effervescing bromo-cafein, the latest remedy for sick headache, particularly useful for females, Valentine's meat juice, and a very large assortment of carefully prepared tinctures, fluid extracts, and other pharmaceutical preparations made up this, one of the best exhibits in the Museum.

The exhibit by Mr. Martindale on stand 41 was of a varied and interesting character. The most noteworthy articles were the following: Dr. Murrell's antidote bag, a very compact and conveniently arranged case of reliable antidotes and instruments. A new insufflator for the self-application of powders to the throat has been designed by Mr. Martindale. This convenient instrument is made of soft rubber, and may be used either for the nostrils or the throat. Sal alembroth, though not a new chemical, deserves to be called a new remedy. It is a double chloride of ammonium and mercury (not ammoniated mercury), and is recommended by Sir J. Lister for use in antiseptic surgery instead of mercuric chloride, because it combines with albumen much more slowly than the latter, is less irritating, and its action is better sustained. Iodol, one of the latest substitutes for iodoform, was exhibited, as were also two compounds introduced by Mr. Martindale, viz., iodo-salicylic acid and di-iodo-salicylic acid. These are iodine compounds of salicylic acid, in which one and two atoms respectively of hydrogen are replaced by iodine. They are white amorphous powders, slightly soluble in water, soluble in alcohol, ether, fixed oils, and, like salicylic acid, also in collodion.

The following are the proportions of iodine contained in these four bodies:—

Iodoform	..	..	..	331	in	394	or about	29	in	30
Iodol	..	..	..	508	..	571	..	9	..	10
Di-iodo-salicylic acid	..	..	..	254	..	350	..	2	..	3
Iodo-salicylic acid	..	..	..	127	..	264	..	1	..	2

There was also exhibited methyl chloride, liquefied and compressed in copper cylinders. Owing to the great degree of cold which the gas produces when it is emitted from the cylinder, it acts quickly as a local anæsthetic in neuralgic affections, and if sufficient be applied to the skin it blisters quickly. Capsules (glass) encased in silk and cotton wool, containing various remedies. Coca leaves and cocaine, and a large number of their preparations. Granular effervescent preparations, hamamelidin, and many other remedies were included in this exhibit.

Close to it, on stands 42 to 46, were the exhibits of Burroughs, Wellcome & Co., and the manufacturers whom they represent. Noticeable as an example of smartness was the excellent exhibit of lanoline and its preparations, the agency for which was acquired only a few days ago by the firm. We understand that the present manufacturers (Benno Jaffe & Darmstaedter) are to make over the manufacture of the basis to the firm, who expect to begin operations very shortly. Several new preparations were exhibited by the firm, which have not yet come into the market, but will be ready in a short time. These are liquid malt, and three preparations of malt with milk, chocolate, and cream. The latter are peptonised desiccated powders, which dissolve readily in water, and are highly nutritious and palatable. A full series of the Kepler malt preparations were shown; the makers claim that their malt and oil is a solution, not an emulsion. It is a fact that when examined under the microscope there is no interference to the passage of light, and the field is as clear as it would be with an aqueous solution of any salt; and the fact that a small amount of water at once causes separation of minute oil globules strengthens the solution theory. In addition to compressed tablets, tabloids, &c., there was a very varied collection of emergency and medicine cases. The latest novelty is a vest-pocket hypodermic case containing twelve kinds of hypodermic tabloids and a silver syringe. A new and compact poison-case has also been designed by the firm, and their Colonial medicine-chest, which we mentioned last week, occupies a prominent position on the stand. Effervescing preparations by Bishop, Fellow's syrup, and a steam atomiser by Cadmann & Shurtleff, Boston, are also included in this exhibit. On separate stands are shown Lawton's absorbent cotton and Burroughs's sanitary sponge (made of cotton wool), and for Fairchild Brothers & Foster, New York, they exhibit trypsin, peptonising powders, zymine, and other digestive compounds.

Several local firms had good exhibits. Glaisyer & Kemp exhibited a good selection of drugs and chemicals, the most

important of which were in a separate case upon which the name of Howards & Son, Stratford was prominent. This case contained, amongst others, the following:—Liquid extract of coca, liquid extract of bark (three kinds), camphor, helenin, cocaine hydrochlorate crystal, cocaine hydrochlorate, cocaine alkaloid, cocaine hydrobromate, cupreine sulphate, cinchonamine, iodoform, urethane, hypnone, terebene, quinine bromide, quinine salicylate, quinine hydrochlorate, and quinine valerianate. Needless to say, the specimens were exceptionally good.

Barton Brothers, 77 King's Road, in addition to several toilet specialities, such as dentifricium, exhibited specimens of extract sarsac liquid, and succus scapi taraxaci. The former is prepared by a process which was submitted by them to the Pharmaceutical Conference in London, 1874, and this (with the exception of a slight alteration suggested by them) is the formula adopted in the British Pharmacopoeia, 1885. The taraxacum juice is a very stable and highly efficient preparation made from the flower stalk.

E. F. Salmon, 30 Western Road, Hove, had an exhibit of considerable interest to chemists at the present time. Mr. Salmon grows his own aconite and some other drugs, and he finds that in addition to getting excellent pharmaceutical preparations from them, they yield a profit. He shows specimens of the aconite, and green extract made from the leaves, also excellent specimens of belladonna, hemlock, and henbane extracts made from plants which were growing in Sussex a week ago.

Tyler & Boutell (Bath) have a small exhibit of pharmaceutical preparations, and A. H. Cox & Co. exhibit their tasteless pills, which have now been before the trade for over thirty years.

Then follow the exhibits of three prominent transatlantic firms. At stand 52 F. Newbury & Sons exhibit for W. R. Warner & Co., of Philadelphia, an excellent assortment of their sugar-coated pills in the show vases which have become so prominent on shop counters of late years. Simple experiments showing the solubility of the pills were in operation throughout the meeting. In addition to pills the firm also exhibited effervescent caffeine and bromide of potassium, and other preparations of this class, "liqueur coca," prepared from the fresh leaves and possessing a delicate aroma. The Messrs. Newbury, for themselves, exhibited the original Dr. Janus's fever powder.

W. H. Schieffelin (New York), through their agent, Mr. W. E. Sacker, 79 Fenchurch Street, exhibit an assortment of soluble pills and granules, which possess a single transparent and water soluble coating. The pills are coated while soft, and as the covering is impermeable, they do not harden, nor are they affected by atmospheric influences. Mr. Sacker is a manufacturer of compressed pellets and discs, which are also exhibited on stand 53. The pellets have the appearance of being well made, and do not crumble on the tongue. Several special forms were shown, including one for laryngeal cough, composed of borax, chlorate of potassium, and ammonium and sodium chlorides, with $\frac{1}{2}$ grain of cocaine in each. Baildon's aperient fruit lozenges were also here exhibited.

The next stand showed a pyramidal pile of ovoid-shaped bottles of various sizes, in which were exhibited the capuled "McK. & R." pills. These have been exhibited before; in fact, they were shown at a "Museum" some years ago, were afterwards sent out to New York, then to Melbourne in 1879, and again they appear here, perfectly unimpaired in strength and unaltered in appearance. The pills are ovoid in shape, and have a transparent capsule of a gelatine compound. Maw, Son & Thompson hold the agency for these preparations. McKesson & Robbins also show cocaine and its salts, including amorphous cocaine—a clear amber-coloured jelly—the same in large crystals, and their anhydrous crystalline hydrochlorate. As a souvenir of the meeting, there were distributed from this stand a series of five views of the Pavilion taken at different periods since 1788.

The Sanitas Company had a large and well-arranged series of their products, and amongst other firms who exhibited we noticed J. Bell & Co., 225 Oxford Street, W. (medicated wools), the Hygienic Candle and Night Light Co. (who combine eucalyptus oil with these illuminants, a capital idea), E. Rimmel (eucalyptus and pine ozonizer), Jeyes's Sanitary Compound Co., and others.

THE BEST HUNDRED BOOKS ON MEDICINE AND SURGERY.

F.R.C.S. sends to *The Provincial Medical Journal* a list of a hundred books with which he considers the junior practitioner would be armed for any emergency. They are the following:—

1. The Works of Hippocrates (2 vols.)
2. Gregory's Conspectus
3. Hunter, John, The Works of (2 vols.), 1855
4. Quain's Dictionary of Medicine
5. Watson's Principles and Practice (2 vols.)
6. Cullen's Works (2 vols.)
7. Oosterlen's Medical Logic
8. Stokes, Works of
9. Graves' Clinical Lectures
10. Marchison, Continued Fevers
11. " On the Diseases of the Liver
12. Pavy on Diabetes
13. Roberts on Urinary and Renal Diseases
14. Reynolds, System of Medicine (5 vols.)
15. Von Nehmeyer, A Text-Book of Practical Medicine (a translation, 2 vols.)
16. Bartholow, A Treatise on the Practice of Medicine
17. Green's Pathology
18. Wood's Treatise on Therapeutics
19. Branton's Handbook of Pharmacology, Therapeutics, and Materia Medica
20. Naphey's Modern Med. Ther.
21. British Pharmacopoeia
22. Squire's Companion to the Pharmacopoeia
23. Martindale's Extra Pharmacopoeia
24. Ringer's Handbook of Therapeutics
25. Farquharson, Guide to Therapeutics
26. Tilt on Uterine Therapeutics
27. Fothergill, Milner, Rational Therapeutics
28. Bucknill and Take, A Manual of Psychological Medicine
29. Ramsbotham, Obstetrics and Surgery
30. Churchill, Manual of Midwifery
31. Leishman, A System of Midwifery
32. Sir S. Wells, Ovarian and Uterine Tumours
33. Hewitt, Diseases of Women
34. Thorburn, A Practical Treatise on the Diseases of Women
35. McNamington Jones, Diseases of Women and Uterine Therapeutics
36. New Remedies
37. Davis, Parturition and its Difficulties
38. Barnes, Obstetric Operations
39. Peaslee, Ovarian Tumours
40. Martin's Atlas of Obstetrics
41. Tait, Lawson, Diseases of Women
42. Hart and Barbour, Atlas and Manual
43. Gant's Surgery (2 vols.)
44. Erichsen's Surgery
45. Holme's System of Surgery (4 vols.)
46. Norton, Operative Surgery
47. Billroth, Surgical Pathology and Therapeutics
48. Gross on Diseases of the Urinary Bladder
49. Reeves, Bodily Deformities
50. Smith, Noble, Curvature of the Spine
51. Heath's Surgery (2 vols.)
52. Paget, Sir James, Lectures on Surgical Pathology
53. Thompson, Sir Henry, Diseases of the Urinary Organs
54. Harrison, Reginald, Lectures on the Surgical Disorders of the Urinary Organs
55. Bryant's Surgery
56. Gray's Anatomy
57. Quain's Anatomy
58. Holden's Osteology
59. Bellamy, The Handy Book of Anatomical Plates
60. Gegenbauer, Elements of Comparative Anatomy
61. Sibson, Medical Anatomy
62. Beale, The Microscope in Medicine
63. Carpenter, The Microscope
64. Neale's Medical Digest
65. German-English Dictionary
66. Index Medicus
67. Dangers to Health
68. Buck, Hygiene and Public Health (2 vols.)
69. Charteris, Health Resorts at Home and Abroad
70. Macpherson, Health Resorts of the World
71. Carpenter, Principles of Human Physiology
72. Foster, Text-Book of Physiology
73. West, Diseases of Children
74. Hayden, Diseases of the Heart and Aorta
75. Walsh, Diseases of the Lungs
76. Fox, Tilbury, Skin Diseases
77. Taylor, Medical Jurisprudence
78. Taylor, Poisons
79. Mayne's Medical Vocabulary
80. Carter Brudenell, Diseases of the Eye
81. Siveking, The Medical Adviser in Life Assurance
82. Salben and Browne, Handbook of Law and Lunacy
83. Glenn, The Laws Affecting Medical Men
84. Tomes, A System of Dental Surgery
85. Madden, Principal Health Resorts
86. Ellis, Manual of the Diseases of Children
87. Crookshanks, Bacteriology
88. Watson Cheyne, Bacteria in Relation to Disease
89. Woodhead, Practical Pathology
90. Gibbs, Practical Histology and Pathology
91. Fownes, Manual of Chemistry
92. Owen, E., Surgical Diseases of Children
93. Scaton, Handbook of Vaccination
94. Tibbitt's Manual of Electricity
95. Oppert, Hospitals
96. Pavy, Food and Dietetics
97. Smith, Treatise on the Diseases of Children
98. Mackenzie, Morell, Diseases of the Throat and Nose
99. Dalby, Diseases of the Ear
100. Page, Injuries of Spine and Spinal Cord

A PLEA FOR AN INTERNATIONAL HOMŒOPATHIC PHARMACOPOEIA.

By J. M. WYBORN, F.C.S.

Paper read before the International Homœopathic Congress at Basle last week.

IN therapeutics the remedies used should be identical, or different conclusions may be arrived at. Hence the importance in therapeutical researches of having the remedies prepared according to one and the same method throughout the civilised world, and of securing those processes which will yield the same products under varying circumstances.

To meet the requirements of the homœopathic physician, then, it is important that there should be an International Homœopathic Pharmacopœia—one approved by the homœopathic pharmacists of all nations, and revised from time to time.

A permanent committee of revision should be established, and each member should make notes of all new discoveries, improvements which suggest themselves, and the like, and submit them for the consideration of an international convention, and those approved of might be incorporated in subsequent editions. Such revision might be made quinquennially or otherwise as agreed upon.

The chief points at which uniformity of pharmacy should be aimed at are—(1) In securing the purity and identity of all ingredients used; (2) in admitting only the same kind of impurities in chemical substances where such are unavoidable; and (3) in maintaining a standard strength of mother tincture, or at least of the first decimal attenuation of all animal and vegetable substances.

(1.) The reasons for the first point are so numerous and obvious when uniform results are desired that I need not enlarge upon them.

(2.) With regard to the unavoidable impurities in chemical substances, it should be borne in mind, especially by those who maintain the theory of potentisation, that impurities in drugs are always potentised to a higher degree than the drugs themselves.

For example, if the drug contain only .001 per cent. of foreign matter, such impurity in the first decimal attenuation will have reached the proportion of 1 in 10,000, and in the first centesimal 1 in 100,000, corresponding in drug strength to the fourth and fifth decimal attenuations respectively, and so on upwards.

As regards some of the impure substances which have been proved, one is inclined to believe it possible that the impurities, and not the substances named, may have given rise to the symptoms produced, or at least that the former may have modified the action of the latter to such an extent that, should such preparations vary in this respect, their beneficial action may be lost even when a perfectly pure drug, alone entitled to the official name, is employed.

Under this category may be mentioned bismuth—which has been said to owe its virtues to the arsenic formerly associated with it—and lapis albus, which contains the ores of several metals. It may also be fairly assumed that the bromine used in the early provings of that drug was largely contaminated by its chlorides—compounds separated from it with difficulty; and such admixture may have given rise to the varied statements of chemists as to the boiling-point of bromine, ranging, as such statements have done during recent years, between 113° F. and 145° F. (or from 45° C. to 63° C.).

Now it often happens that the traces of impurities found in analysing a chemical preparation indicate the process by which it has been obtained, and hence the possibility of giving in a pharmacopœia suitable tests to detect a deviation from the official process.

(3.) The third feature—the maintaining a standard strength as a starting-point of attenuation—is of fundamental importance, and the reasons for it are strengthened by the fact that in clinical records of cases treated with low potencies much misunderstanding may arise as to the exact doses employed in procuring the results published so long as various methods of preparation exist among pharmacists of different countries for want of some authoritative pharmacopœia.

That such differences do exist will be seen from the fol-

lowing table, showing approximately the possible variation in strength of several important mother tinctures of fresh plants, selected as examples of preparations made according to the British, American, and Polyglot Homœopathic Pharmacopœias respectively, from plants grown in dry and in wet seasons, and consequently containing *minimum* and *maximum* quantities of water.

Name	Loss in Drying	Strength of Tincture			
		In Dry Seasons		In Wet Seasons	
		British Homœopathic Pharmacopœia	American and Polyglot Pharmacopœias	British Homœopathic Pharmacopœia	American and Polyglot Pharmacopœias
	Per cent.	gr. m.	gr. m.	gr. m.	gr. m.
<i>Aconitum napellus</i> .	70 to 73	1 in 10	1 in 5.6 or uncertain	1 in 10	1 in 8 or uncertain
<i>Agaricus muscarius</i> .	92 „ 94	1 „ 24	1 in 47	1 „ 33	1 in 63
<i>Belladonna</i> . . .	86 „ 89	1 „ 13	uncertain	1 „ 17	uncertain
<i>Bryonia (dioica)</i> . .	70 „ 85	1 „ 10	„	1 „ 12	„
<i>Conium maculatum</i> .	74 „ 77	1 „ 10	„	1 „ 10	„
<i>Digitalis</i> . . .	73 „ 83	1 „ 10	„	1 „ 15	„
<i>Dulcamara</i> . . .	73 „ 80	1 „ 10	„	1 „ 10	„
<i>Hyoscyamus</i> . . .	79 „ 84	1 „ 10	„	1 „ 11	„
<i>Sabina</i> . . .	45 „ 51	1 „ 10	1 in 6	1 „ 10	1 in 7
<i>Scilla</i> . . .	73 „ 79	1 „ 10	1 „ 12	1 „ 10	1 „ 17

Under the heading “Strength of Tincture” the figures express the number of *minims* which are equivalent to as much of the fresh plant as would represent *one grain* if dried.

It will be observed that in the case of *agaricus* it is possible that the British tincture may be as strong as 1 in 24, while the American or that of the Polyglot Pharmacopœia may be as weak as 1 in 63, or little more than one-third the strength: in several instances, while the tincture of the American or Polyglot Pharmacopœia varies considerably, the British is constant in both dry and wet seasons; and finally, in many cases, while the former tincture is always of uncertain strength, the British is definite, and varies only slightly with one exception.

As examples of variable 1x attenuations, I may mention that *aconitum* 1x (if not of uncertain strength, as when an alternative process, suggested in the American Pharmacopœia, is followed) would vary between 1 grain in 23 minims, and 1 grain in 40 minims; *agaricus* 1x between 1 in 78 and 1 in 105; and *scilla* 1x between 1 in 20 and 1 in 27; while the British preparation of each would be 1 in 100, as before stated.

Thus the “American Homœopathic Pharmacopœia,” compiled and published by Messrs. Boericke & Tafel, and augmented by Dr. O'Connor (1883), gives the following proportions of measure and weight in the preparation of tinctures of vegetable substances, which are divided into four classes:—

Class I.—Equal parts by weight of the expressed juice and of alcohol.

Class II.—Two parts of alcohol added to three parts of fresh plant, or part thereof.

Class III.—Two parts by weight of alcohol to one part by weight of fresh plant, or part thereof.

Class IV. (which includes dried vegetable and animal substances, and also fresh animal substances).—Five parts by weight of alcohol to one part by weight.

The drug powers of these tinctures are said to be $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{5}$ respectively, and either 2 or 6 minims are diluted to 10 minims to form the 1x potency of the first three classes, while the preparations under Class IV. are at once 0 tinctures and 1x potencies.

Thus the strength of the first three classes of mother tinctures and attenuations varies with the seasons—the *juice*, and not the dried substance, being taken as *zero*, whether the former be abundant and weak or scanty and concentrated, while in tinctures prepared according to Class IV. the dried substance is taken as the starting-point of attenuation.

In the “Pharmacopœia Homœopathica Polyglotta,” by Dr. Schwabe of Leipzig—published in five languages (1880)—the proportions and processes for tinctures of vegetable substances appear to be almost identical with those just de-

scribed But here the reason for representing a tincture of a dried plant prepared by means of five parts by weight of strong alcohol as having a drug power of $\frac{1}{10}$ becomes apparent, since it is remarked that 200 drops of strong alcohol or 100 drops of distilled water are assumed equal to 100 grains, and hence 10 drops or half-grains (not minims) of the tincture would contain the soluble matter of 1 grain.

At the same time aqueous solutions are directed to be made in the proportion of 1 grain to 9 grains (i.e. about 10 minims), the drug power being still stated as $\frac{1}{10}$.

Alcoholic solutions of two parts by weight of the medicinal substance in 9 parts by weight, or 1 grain in 9 drops, are considered $\frac{1}{10}$.

On the contrary, in the American Pharmacopœia these are made of the strength of 1 grain to 9 grains, i.e. 1 grain in 20 drops, and the amount of drug power of the solutions is still designated $\frac{1}{10}$, though these preparations have only half the strength of the last described.

The methods pursued by pharmacists of different countries also vary.

Some pharmacists obtain many of their fresh plant tinctures by merely mashing up the magma with alcohol and immediately pressing, without any idea of exhausting the plant or reducing the tincture to a standard strength—much in the same fashion and with as little utilisation of scientific knowledge as a cook would prepare horseradish sauce—while the rest are chiefly made by maceration with occasional shaking for eight days. Others use the latter process during fourteen days, and others again adopt percolation and maceration combined.

The plan on which the "British Homœopathic Pharmacopœia" has been built up has for its objects, in addition to the identification of all substances concerning which any doubt existed, and the supplying of good practical tests whereby the identity and purity of each medicine could be ascertained, the preparation of tinctures containing all the soluble ingredients of the substance employed, uniform in drug power, and of a fixed alcoholic strength.

In endeavouring to attain these objects all theoretical or disputed questions have been avoided, and only such characters and tests have been given as are, to a great extent at least, distinctive and necessary, while those of a less important nature, which can be readily ascertained elsewhere, have been omitted, thus giving prominence to all which are essential.

In the case of most chemical substances in which some traces of impurities necessarily exist, the source of the substance used in the provings and the particular mode of preparation have been indicated, so as to ensure the absence of unusual impurities. And in cases where commercial drugs have been authorised the source and the process of preparation followed at the date of their introduction have, where possible, been recorded.

In the preparation of tinctures of fresh plants the complete solution of all soluble matter is accomplished by varying the alcoholic strength to suit the nature of the ingredients in each plant, using a very dilute spirit where the ingredients are chiefly soluble in water, and a strong spirit where alcohol is the best solvent; also by using a sufficient quantity to insure the complete exhaustion of the plant.

With these ends in view, spirits of six different densities are provided.

"In every instance the dry crude substance is taken as the starting-point whence to calculate the strength, and, with very few exceptions, the mother tinctures contain all the soluble matter of 1 grain of the dry plant in 10 minims of tincture."

Directions are given for ascertaining the quantity of moisture contained in the fresh plant, and a series of tables by means of which the pharmacist can calculate the exact quantity and strength of spirit which he has to use in the case of each medicine, allowing for the water present in the plant, which mixes with and dilutes the spirit employed in making the tincture to the standard alcoholic strength decided upon.

"By careful attention to these tables, uniform products may be obtained from all plants, notwithstanding their variableness of moisture, and also by diluting the matrix tinctures with a spirit of the same strength, dilutions may be always made of the same medicinal value."

In all instances the drug power of the British tincture is

known with certainty, and therefore the 1x attenuation can always be made of a uniform strength—i.e., 1 grain in 100 minims.

Where no special method is laid down, all medicines are directed to be prepared according to one of three processes, as follows:—

Process I.—By slow or interrupted percolation.

Process II.—By maceration previous to percolation.

Process III.—By maceration alone.

Juicy plants are pressed before percolating them with alcohol, so as to remove the greater portion of their albumen, and to prevent its coagulation in their tissues, by which an obstruction would be caused to the action of the spirit.

All aqueous solutions, whether of acids or salts, are also directed to be made of the strength of 1 grain in 10 minims.

Triturations are prepared as directed by Hahnemann or Gruner with some slight modifications.

That these measures are sufficient to ensure a fair degree of uniformity appears more than probable.

Doubtless much variability occurs in the alkaloidal strength of plants grown in different situations and at different times, but this is a difficulty which no adequate means have yet been taken to adjust. The compilers of the "British Pharmacopœia" (of 1885) have indeed made an effort in this direction by ordering the estimation of the total alkaloids and the reduction of the tincture or extract to a standard alkaloidal strength; but, taking *nux vomica* as an instance, the nut of one year's growth may contain a large excess of brucine and loganine, while the powerful alkaloid strychnine may be associated with them in deficient proportions, yet making up an excess in the aggregate, and to reduce the total alkaloidal strength to a standard under these circumstances would be to weaken the active properties of the preparation.

If, however, a perfect representative of the plant or drug be secured, as it may readily be by the adoption of the means set forth in the British Homœopathic Pharmacopœia, a degree of accuracy and certainty may be attained sufficient for all purposes, and the advantages to all concerned if this be so will be great. In all countries investigators will in future at all times be dealing with known quantities under one and the same designation, and may look for uniform results from identical experiments—an acquisition which could scarcely be expected in a great number of instances as matters now stand.

One of the chief errors of the American and Polyglot pharmacopœias is that which recognises the mere watery juice of the fresh plant as official, omitting from the preparation all substances soluble only in spirit.

In justification of this course it is sometimes stated that the juices of plants have been used in the provings; but this is true only in the most limited sense, for the fact is, many of the symptoms of the provings have been obtained from the plants themselves or their flowers, roots, &c., having been eaten by mistake or otherwise, and these have, in all probability, contained medicinal substances insoluble in water but soluble in alcohol.

In other cases the quantity of menstruum used is too small to exhaust the drug, and should it, like *nux vomica* and opium, contain several alkaloids—some readily soluble, others sparingly so—those of the former class would all be extracted, while those of the latter would be partly left in the marc, and the operator would fail to obtain a true representation of the drug. However finely pulverised, *nux vomica* cannot be exhausted by five parts by weight of alcohol of the strength given in both the American and Polyglot pharmacopœias, as will be discovered on tasting the marc after pressure, and further percolation with sufficient spirit to wash it. Likewise with opium—a large proportion of the less soluble ingredients will be left in the marc after treatment as directed in these works.

Another source of incomplete exhaustion is the mixing of strong alcohol with some juicy plants reduced to pulp without previous pressure, by which the albumen becomes coagulated, and hinders the action of the alcohol in which they are merely macerated. The pharmacopœias of Gruner and Jahr—still much used in Germany—while directing a more perfect method of exhaustion in some cases, yet fail in other respects. All these errors may be obviated by the adoption of the British methods before described.

The facts which I have narrated afford very strong evidence that many advantages would arise from their general use.

These methods have long had the sanction of the British Homœopathic Society, represented by the late Drs. Quin and Madden, and by the worthy editor of the last two editions of the Society's Pharmacopœia—Dr. Drury. That indefatigable worker, Dr. Richard Hughes, has scrutinised and concurred in this work, in addition to having added largely to its articles. Other pleas might also be urged for them, but enough has been said to render superfluous any further remarks of mine.

Let the "British Homœopathic Pharmacopœia," then, be submitted for the approval of the American Institute of Homœopathy as a *basis* for an "International Homœopathic Pharmacopœia," to be rendered more complete hereafter. Should this Association be disposed to adopt it, one great step will have been made towards its acceptance by similar societies of other nations, who may be induced to translate and improve it. It will then be highly improbable that a medical practitioner in America or elsewhere, seeing a case recorded in an English journal in which it has been found advantageous to prescribe aconitum 1x, and desiring to follow the same treatment, will administer to his patient a preparation of this powerful drug three or four times the strength, though bearing the same label, as might very easily happen at present. The existing inconsistencies will be avoided, and so shall we have the uniformity of pharmacy, the advantages of which I have endeavoured in this paper to point out. Our literature will record the results of investigations with known instead of unknown or uncertain agents. The calculations of our therapeutists will be based upon constants in place of unknown quantities. A nearer approach towards a settlement of the question of doses may be possible; and an additional stimulus will be given to the researches of pharmacists whose ambition it is to improve their art and assist in its development. To suggest a departure from the processes of Hahnemann is to commit a serious offence in the eyes of some, and a mistake according to others; but I would reply that in Hahnemann's day scientific fallacies were numerous and widely accepted without adequate examination, and that great original thinker himself occasionally committed errors, though among all his enemies he was foremost in discovering and admitting them.

TO A TIMID LEECH.

NAY, start not from the banquet where the red wine foams
for thee,

Though somewhat thick to perforate this *epidermis* be;
'Tis madness, when the bowl invites, to linger at the brink;
So haste thee, haste thee, timid one. Drink, pretty creature
drink!

I tell thee, if these azure veins could boast the regal wine
Of Tudors or Plantagenets, the draught should still be thine!
Though round the goblet's beaded brim plebeian bubbles
wink,

'Twill cheer and not inebriate. Drink, pretty creature,
drink!

Perchance, reluctant being, I have placed thee wrong side
up,
And the lips that I am chiding have been farthest from the
cup.

I have waited long and vainly, and I cannot, cannot think
Thou wouldst spurn the oft-repeated call: Drink, pretty
creature, drink!

While I watch'd thy patient struggles, and imagined thou
wert coy,

'Twas thy tail, and not thy features, that refused the proffer'd
joy.

I will but turn thee tenderly—nay, never, never shrink—

Now, once again the banquet calls: Drink, pretty creature,
drink!

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

VERMIN-KILLER.—A singular case of arsenic poisoning occurred a few days ago at Bergerac, in the department of the Dordogne. An inhabitant of the place procured a packet of white powder called *Mort-aux-rats*, which, he was assured, contained no ingredients dangerous to man. Carelessly leaving the powder about in his kitchen, the servant mistook it for flour, and used it as such. The family, after partaking of the dish, were attacked by violent colic, and showed every symptoms of arsenic poisoning. Energetic medical action, however, prevented loss of life.

M. CHATIN ON THE RETIRED LIST.—The former director of the Paris College of Pharmacy has been admitted to the retired list with the title of honorary director of the institution with which he was connected. His retirement cannot be said to be untimely, for he is certainly past seventy years of age. His successor's election has not, so far, been officially approved by the Minister. Messrs. Gavarcet, Hardy, and Sappey, professors of the Paris Faculty of Medicine; Joire, Garreau, and Pilat, of the Lille Faculty; Benoit and Dupré, of Montpellier; and Hergott and Parizot, of Nancy, have also been placed on the retired list, with the pension which they are entitled to.

CHEVREUL, who will soon complete his century, has been made a Doctor of Medicine by the Heidelberg University, on the occasion of the recent festivities. It is a long time since such compliments have been exchanged between the two countries. The old gentleman is a sight to behold. At the last sitting of the Academy of Sciences (August 9) he was present as usual, and as usual had much to say. Although stooping slightly, he walks with a steady step, talks with a good clear voice, and speaks of what occurred in 1818 as if it were yesterday. He looks younger than his photographs make him appear; in fact, one might say he does not look his age, were it not that one does not exactly know what a centenarian should look like.

HYDROPHOBIA STATISTICS.—An interesting fact came out at the Municipal Council meeting of August 5, while the councilmen were discussing the grant of land asked for the Pasteur hospital building. As usual, Dr. Cattiaux violently attacked the great inoculator, saying Pasteur had never cured anybody, but had possibly killed more than one patient with his treatment. In reply, M. Chautemps quoted the official statistics of the Paris hospitals. From these it appears that the number of deaths occurring in the hospitals from bites received in the Seine department varied usually between twelve and fifteen every year. But for the past eight months only one death from hydrophobia had been observed, namely, that of a patient of the Beaujon hospital, who had not been inoculated. As a result, Pasteur got his grant of a fine plot of ground in the Rue Vauquelin for ninety-nine years.

ACADEMY OF MEDICINE PRIZES.—At the meeting held on August 10 the following subjects were selected for the prizes offered by the Academy:—*Academy Prize* of 1,000f.: Vaginal hysterectomy; indications and operating processes. *Argenteuil Prize* of 10,000f.: Improvement in the treatment of stricture of the urethra or other diseases of the urinary apparatus. *Barbier Prize* of 2,000f.: Successful treatment of diseases considered incurable, such as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, &c. *Henri Buignet Prize* of 1,500f.: For the best work on the applications of physics or chemistry to the medical science. *Portal Prize* of 600f.: On primitive renal tuberculosis. *Saint-Lager Prize* of 1,500f.: For the artificial production in animals of goitre caused through the administration of substances extracted from the water or soil of countries in which the disease is endemic. *Vernois Prize* of 800f.: For the best work on hygiene. The memoirs, written in French or Latin, must be in the hands of the Secretary of the Academy before May 1, 1887. Foreigners are not allowed to compete for the Henri Buignet prize.

Legal Reports.

TRADE-MARK LAW.

ON the 5th inst. Mr. Justice Chitty had before him an application under the Patents, &c. Act, 1883, which brought out an important point of trade mark law. The applicants were a company incorporated under the name of the Normal Company for the purpose of carrying on the manufacture of articles of food by processes of extraction. This company had applied to register the word "Normal" as a trade mark for food substances. The Comptroller, after hearing the application, refused, as was stated by the applicants, because the Board of Trade had instructed him not to register, under sec. 64 of the Patents, &c. Act, dictionary words as fancy words. The applicants accordingly moved the Court for a direction to the Comptroller to proceed with the registration. The Comptroller, however, raised the objection that the Court had no jurisdiction, supporting his case by reference to sec. 62 of the Patents, &c. Act, 1883, which provides (sub-sec. 4) that the Comptroller may, if he thinks fit, refuse to register a trade mark, but any such refusal shall be subject to appeal to the Board of Trade, who shall, if required, hear the applicant and the Comptroller, and may make an order determining whether, and subject to what conditions, if any, registration is to be permitted; and (sub-sec. 5) that the Board of Trade may, however, if it appears expedient, refer the appeal to the Court, and in that event the Court shall have jurisdiction to hear and determine the appeal, and may make such order as aforesaid. The applicants answered the objection by submitting that it was open to them either to have the difference between them and the Comptroller decided under sec. 62 by the Board of Trade, or to have it decided by a court of law under sec. 90 of the Act, which provides (sub-sec. 1) that the Court may, on the application of any person aggrieved by the omission without sufficient cause of the name of any person from the register or by any entry made without sufficient cause, make such order for making, expunging, or varying the entry as the Court thinks fit, or the Court may refuse the application; and (sub-sec. 2) that the Court may in any proceeding under the section decide any question that it may be necessary or expedient to decide for the rectification of a register, and may direct an issue to be tried for the decision of any question of fact, and may award damages to the party aggrieved.

Sir Horace Davey, Q.C., and Mr. Ingle Joyce, for the Comptroller, submitted that sec. 62 was an express and unambiguous enactment confining the remedies of an applicant whose attempt to register a trade mark was refused by the Comptroller to an appeal to the Board of Trade, and giving an appeal to the Court only by leave of the Board of Trade.

Mr. Aston, Q.C., and Mr. Chadwyck Healey, for the applicants, submitted that sec. 90 of the Act of 1883 was substantially a re-enactment of sec. 5 of the Trade Marks Act, 1875, though expressed in general terms, so as to include patents and designs, instead of being confined to trade marks. If the contention of the Comptroller were right, important questions, involving property worth enormous sums, involving issues which hitherto had reached the House of Lords, might, by virtue of a new jurisdiction created by a slipshod enactment, be determined in the private room of the Board of Trade on unsworn evidence, and before persons undefined and of unknown qualifications, and whose decisions could not be reviewed. It was scarcely reasonable that the statutory right conferred by the Act of 1875 of recourse to the Court could be ousted by a subsequent enactment which was open to a conjectural interpretation, and that the rights of a proprietor, say, of an old mark in use for a century could be destroyed by a refusal on the part of the Board of Trade to register. Sec. 90 was wide enough to authorise an application to the Court, and sec. 62 did not in terms or by implication exclude such application.

Sir Horace Davey, in reply, argued that the applicants had at the most made out a case of hardship which could only be remedied by the Legislature. It might, however, be presumed that the Act of 1875 was altered in 1883 on new considerations. The case was similar to those where the fiat of the Attorney-General was to be obtained before taking legal proceedings. It was not to be doubted but that the Board of

Trade would exercise in a fair and proper manner the discretion imposed upon it of referring questions to the Court.

Mr. Justice Chitty said he had to look not only to sec. 90 standing by itself, but to sec. 90 as read with every other section in the Act which appeared material, and the whole consolidated scheme of the Act with reference to the registration of patents, designs, and trade marks. There were reasons, which his lordship stated, in the wording of the Act for assuming that it was intended that the registration of patents and designs should be left to the decision of the Comptroller, subject to an appeal to the Board of Trade, and his lordship was of opinion that there was a precise and particular mode of seeking registration for a trade mark pointed out by the Act, and that was that the applicant should apply to the Comptroller, and from him appeal to the Board of Trade. It was said that it was scarcely conceivable that Parliament should have intrusted questions like those mentioned in the 73rd section, which often were of moment or magnitude, to a tribunal such as the Comptroller in the first instance, and the Board of Trade in the second instance, to be decided on statements made not on oath and upon a private hearing, lacking that safeguard of publicity which was one of the most important elements in the administration of justice. That was an argument of great weight. It was not, however, sufficient to counterbalance in favour of sec. 90 the controlling context of the Act such as was contained in secs. 47 and 62. There might be many trivial and unimportant questions which might be well left to the decision of the Comptroller, while powers had been intrusted to a great department of State like the Board of Trade, a body which, if apprised of any deficiency on its part to deal with a question, could refer the question to the Court under the power to that effect expressly contained in the Act. With regard to the argument that had been adduced as to destruction of an old mark by refusal to register, any apprehension as to that was especially provided against, for the refusal to register did not invalidate such marks. Moreover, it was to be remembered that the Act contained in sec. 81 an express series of provisions in reference to Sheffield marks giving the Court jurisdiction with respect to those marks over the discretion of the Comptroller; therefore his lordship came to the conclusion that sec. 90 did not give the Court jurisdiction to entertain the application, and that the Comptroller was right in his contention.

Counsel for the Comptroller applied for costs, and Mr. Justice Chitty said he must have them. The Court had no option in the matter.

BANKRUPTCY REPORTS.

Re THOMAS HENRY LUKYN, 2 Praed Street, and 9 Craven Road, Paddington, Dentist.

THIS debtor applied on Monday to Mr. Registrar Hazlitt to pass his public examination upon accounts showing unsecured liabilities 422*l.* 6*s.* 6*d.*, against assets *nil*. The deficiency appears to have arisen from his expenses having exceeded his income. He states that he derived large sums from baccarat and racing. His receipts from his business have been insufficient to meet current expenses. It was stated that a telegram had been received from the debtor stating that he was too ill to attend the meeting, and the examination was accordingly adjourned to November 4.

JOHN ANGUS, London and Berwick-on-Tweed, Chemical Broker.

THE following are fuller details of this failure than were given last week. According to the Official Receiver's summary of the debtor's statement the fully secured debts are 600*l.*, partly secured 158,398*l.* 6*s.* 5*d.* (the value of the securities being estimated at 140,858*l.* 10*s.* 9*d.*), the liabilities on bills other than the debtor's own acceptances are 58,843*l.* 8*s.* 9*d.* (of which 50,269*l.* 11*s.* 5*d.* is expected to rank); the preferential debts are 152*l.* 18*s.*, and the unsecured debts 6,704*l.* 0*s.* 6*d.* On the other side of the account the assets, less preferential claims, are 10,791*l.* 19*s.* 9*d.*; the cash in hand is 3,308*l.* 6*s.*, the stock in trade is valued at 747*l.* 14*s.* 10*d.*, office furniture at 150*l.*, and household fur-

niture at 745*l.* 15*s.*; good book debts are estimated to realise 2,480*l.* 18*s.* 7*d.*; bad and doubtful debts of 22,337*l.* 7*s.* 9*d.* are estimated to produce 1,184*l.* 10*s.* 4*d.*; there is a bill of exchange for 950*l.*, and "other property" is returned at 1,350*l.* 3*s.* The deficiency is put down at 63,739*l.* 17*s.* 10*d.* The profit and loss account shows that from October 1, 1883, when the debtor commenced to carry on business alone, to March 31, 1886, the total profit made in the business was 10,664*l.* 3*s.* 4*d.*, while the personal drawings in the same period were 6,248*l.* 4*s.* 5*d.* But from this had to be deducted a sum of 3,929*l.* 8*s.* 2*d.*, being a joint adventure account (with Messrs. J. Gibbs & Co.) taken over from the firm of Blagden & Angus, the amount of which is now written off as a total loss. The debtor's drafts on Messrs. Jas. Gibbs & Co. amount to 50,269*l.* 11*s.* 5*d.* The debtor's failure is due to the failure of Jas. Gibbs & Co.

The principal creditors are:—

	£	s.	d.
Anglo-Continental Guano Works, Leadenhall Street	57	8	6
Blagden, W. G., Fenchurch Avenue	11	16	1
Blumenfeld, B. D., Hamburgh	1,000	0	0
Barré & Co., Betton près Rennes	99	9	5
Cornwall, F. J., Crosby Buildings, Crosby Square	169	19	5
Dunn Bros., Manchester	102	12	10
Duncan, J., Victoria Docks	16	19	8
Forbes, Abbott, & Lennard, Fenchurch Street	2,000	0	0
Gas Light and Coke Company, Westminster	48	13	4
Hunter, A., Gracechurch Street	300	0	0
Hecker & Co., P., Mincing Lane	24	4	3
Jourdan & Newtons, Birelin Lane	257	10	4
Matheson, T., & Co., Gracechurch Street	37	8	9
Meister, Lucius, & Brining, Hoechst	16	13	4
Page, C., & Co., 41 Seething Lane	50	0	0
Ponfick Moritz, Frankfort-on-Maine	20	17	3
Pontifex & Wood, Shoe Lane	17	12	6
Sadler & Co., Gracechurch Street	500	0	0
Spencer, E., & Co., Aldgate, E.C.	10	17	0
Société Anonyme de Aplz, Brussels	32	9	7
Theobald Bros. & Mill, St. Swithin's Lane	28	7	0
Teschensker & Smith, Highbury	10	8	6
Van Baylen, Antwerp	438	17	5
Worrall & Robey, Fenchurch Street	19	5	3
Walker, Howard, & Co., Lower Thames Street	11	8	8
Waller & Young, Minories, E.C.	1,381	13	6

Fully Secured.

Young, Alex., Tettonhall, near Wolverhampton	600	0	0
--	-----	---	---

Partly Secured.

Linon & Co., Antwerp	64,271	6	2
Burchard, F. W., Hamburgh	15,789	16	11
Ohlendorf & Co., London	15,868	3	6
Schroeder & Michaelson, Hamburgh	27,000	0	0
Bank of Scotland, Lothbury	35,468	19	10

The first meeting of the creditors was held on August 10. After a short discussion a composition of 2*s.* in the pound was accepted, payable within seven days from the approval of the resolutions.

The debtor appeared before Mr. Registrar Giffard for his public examination on August 11. Mr. Aldridge, the Official Solicitor, stated that the first meeting of creditors had only been held the previous day. In examination the debtor stated that he traded as John Angus & Co. He commenced business in 1873 in partnership, which was dissolved in 1883. At the time of the dissolution he had about 6,000*l.*; 3,000*l.* of his own and 3,000*l.* borrowed from friends. His failure was entirely due to the stoppage of Messrs. James Gibbs & Co., who owed him about 6,000*l.* or 7,000*l.* He had never failed before. There was no opposition, and His Honour directed the examination to be concluded.

Obituary.

LOWNDES.—On August 1, at his residence, 7 Hall Street, Stockport, Mr. Hervey Lowndes, pharmaceutical chemist. Aged 74. Mr. Lowndes carried on business at Middle Hillgate, Stockport, from 1842 till about eight years ago, when he retired in favour of his son-in-law, Mr. William Banks, who still conducts the business.

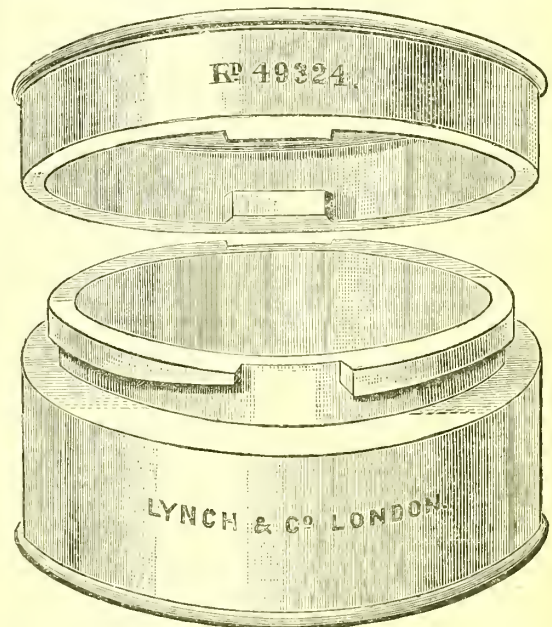


CASCARA CAPSULES.

MESSRS. DUNCAN, FLOCKHART & Co., of Edinburgh, have produced capsules of Cascara Sagrada, each containing half a teaspoonful of the fluid extract, thus allowing one, two, or more capsules to be taken for a dose. The nauseous bitter taste of the medicine is the chief drawback to its general use in cases of constipation, and renders the capsule form a particularly suitable method of administration. Messrs. Duncan & Flockhart's capsules are remarkably soft, flexible, and soluble, but at the same time extremely strong. They are put up in 1*s.* 6*d.* and 2*s.* 6*d.* boxes.

LYNCH'S LOCK-LID COVERED POTS.

AN obvious advantage is secured in the covered pots which Messrs. Lynch & Co. have just designed and registered. By the simplest arrangement, which is comprehensible by a



glance at the engraving, the lid can be securely attached to the pot, a benefit which will be readily appreciated by persons who wish to take a pot of cold cream, ointment, or some kind of pomatum with them on their journeys. These pots are made in nine sizes.

MR. W. THIRLBY, of Leicester, has sold his aerated-water business to Mr. J. Allbrighton, of the same town.

THE NATIONAL ECLIPSE STOPPER COMPANY (LIMITED), 45 Sidney Street, Oxford Street, Manchester, was registered on August 9, with a capital of 50,000*l.* in 1*l.* shares. The company are to purchase from William Henry Sinnatt and Francis Sinnatt, of Liscard, and from John Franklin Grant, of Manchester, for 5,500*l.* (3,000 in shares and 2,500*l.* in cash), their rights in a patent for stoppers (1,469, 1876), and to use, vend, and manufacture the same. The subscribers are John Hall, draper; L. Royce, traveller; J. T. Turner, hotel-keeper; R. W. Fletcher, spirit merchant; W. Muncester, wine dealer; J. Houlst, manager; T. Ghanlesse, grocer; and W. Morley, commercial traveller; all of Manchester.

AT THE COUNTER.

A YOUNG girl enters the shop hesitatingly and asks for "Threepenn'orth of M.P. lozenges." "M.P. lozenges? You must be mistaken. What are they for?" "Oh, they are little pink square lozenges for a sore throat." "Ah, what you want are cayenne lozenges!" "Oh, yes; K N then. I knew it was two letters."

* *

MESSRS. BELLAMY & WAKEFIELD, Birmingham, received the following the other day

Gremodax

which was a puzzle to four of their staff, until a fifth suggested that cream of tartar might be the article required.

* *

MR. MARK SMITH, Louth, sends us the following order in excellent handwriting:—"½ oz. of Murphy's Ippy Poppy cough lozenges." Morphia and ipecac. lozenges were wanted.

* *

DRUGGIST'S COURTING.

Miss *Hematox* was gay and bright,
A charming little dovey,
Her young man said to her one night,
I've *camphor* you my lovey.

But do you love *ann-atto* yet,
My eager, *argent* suitor?
That thought I'll not *aloe* my pet,
I'll *castor* off or shoot her.

"I *laud-a-nam*, 'tis *Hematox*;"
If that is so my laddie,
Then *ether* you *aurei*, you fox,
Musk go and see my dady.

Her *pap-avered* he could not say
Without her *antimony*,
He *cort aurant* that very day,
Who favoured matrimony.

ACID TART. (178/6.)

* *

W. S. (Edinburgh) sends us the following items lately received:—"Ascifidty Pills." "Som cobolick-ised." "Wm. Donald Thompson called for 1d. worth of Antibilous Pills, you only gave him two, which three is the thing, some gives four. i have no idea taking advantage of a Child. if you pleas to give him another."

* *

WHO IS A FAMILY CHEMIST?—A servant maid, age about twenty-two, not over bright, came into the shop. My wife passed through. The maid turned and said to me, "Who is that?" I said, "My wife." She said, "Oh, are you married?" I replied, "Yes, have been for years." She exclaimed—looking sheepish and blushing deeply—"Why, law, of course, I might a' know'd that, coz how could you be a family chemist if you were not a married man?" She had seen the words "Family Chemist" on the labels.—J. P.

* *

THE best way to keep mucilage, writes an Indian correspondent, is to preserve it in a bottle corked with an indiarubber stopper. The indiarubber will not stick to the glass as an ordinary cork does; it fits tightly, so preventing access of air from decomposing the gum, and can readily be cleansed. Once used an indiarubber cork will always be used in the mucilage bottle.

* *

SANDY.—"I want a cake o' soap, Mr. M'Intosh." Chemist.—"I canna let ye hae a cake o' soap on th' Sawbath day, Sandy." Sandy.—"But ye sell'd that lassie peppermint drops." Chemist.—"Ay, ye can sook peppermints in the kirk, but ye canna wash yersel' there."

THE ASPIRING ASSISTANT;

OR,

THOMAS HOOD, *redircus iterumque extinguis*.

HE was thoughtful—he was melancholy!

"How," said he, "unburthen myself? No, never—never!"

"In that case," I said, "it would be better not."

"I must-er not! I dare-r not!"

"Don't!" said I.

Then he immediately set about doing it.

"I have—" he began, "I have composed—"

"A poem," replied I, helping him out. "Dear me, you have groaned enough to compose a corpse, or (*sotto voce*) rouse one."

"No, James, not a poem; a simple parody!"

"Ah! no doubt your wonderful imitative faculty prompted it, and so on reading I promise not to laugh."

"To laugh?"

"Or to cry!"

A sigh escaped him, which indicated preference for neither. He glanced at a shelf, rushed forward in a frenzy, caught up and presented excitedly to me the cherished MS. I read it.

The occasion was too peculiar for words. I felt the scorching rays from his hot eyeballs upon me. I moved not a muscle. Thought I, "criticism disarmed" will beguile him least.

"Well?" he gasped.

"Rubbish!" I answered.

He fell and departed hence.

I buried him, and read his will. My direst anticipations were fulfilled. In law-like terms it said, "Print that poem, or live for ever accursed."

The choice between the two evils was difficult; but the agony of the reader will doubtless afford him soothing satisfaction, and hence my choice.

THE DIRGE OF THE DRUGS.

With kind remembrances to the "*Song of the Shirt*."

WITH fingers swollen and red,
With eyelids drooping and dim,
A chemist stood in the flare of his shop,
Doling his physie for "tin,"
Grain—ounce—pound—
In bottles and boxes and mugs,
And now hear his voice of heartrending sound
As groaning the "Dirge of the Drugs."

"Slave—slave—slave—
As soon as the sun peeps out;
And slave—slave—slave—
So long as a penny's about,
O! but to be a 'cutter'

With Lewis, Whiteley, Bon Marche,
Where labour earns bread minus butter,
The collar does without starch!

"Slave—slave—slave—
With pestle and mortar and knife,
Slaving for health the strongest brave,
Driving out death, bringing back life!
Drop and minim and drachm,
Drachm and minim and drop—
Whilst over the 'piping' a moment I nod
And 'roll' them a sleeping top.

"Oh patron of markets cheap!
Oh dealer in unfair trade!
Your neighbour smashed, up the poor rates keep,
Art sure of the bargain made?
Crucible, balance, retort,
Weary research—the soul's despair—
Have they our birthright bought?
Dare not we ask a common share?"

"SANITAS."

CAUTION.—The fancy word "SANITAS" is our Registered Trade Mark.

THE BEST DISINFECTANT.

Non-Poisonous. Colourless. Gives no Stain. Fragrant.

Fluids; Oil; Emulsion; Insecticide; Powder; Sheep Dip; Hard, Soft, Animal, Brown Windsor, and Toilet Soaps; Soap Powder; "Sanitas" Disinfecting Jelly; Veterinary Ointment; Tooth Powder; Toilet Powder; Toilet Fluid; Furniture Cream; Antiseptic Gauze; Fumigators.

GOLD MEDALS, Calcutta, 1884, and Paris, 1885.

Liberal Terms, New Show Cards and Bills to the Trade.

Sole Manufacturers, The "Sanitas" Co., Limited, Bethnal Green, E.
C. T. KINGZETT, F.L.C., F.C.S., Managing Director.

SILICATED CARBON FILTERS.

PATENT
MOVABLE
BLOCK

SEE ADVERTISEMENT, PAGE 18.

Friedrichshall.

THE WELL-KNOWN APERIENT MINERAL WATER.

IMPORTANT NOTICE.

By reason of an improved method of caption, by which dilution is avoided FRIEDRICHSHALL WATER will be found now to be of CONSIDERABLY GREATER STRENGTH and EFFICACY than heretofore.

The ordinary dose is a large wineglassful (4 ounces) taken fasting. Most efficacious and more acceptable to the palate when heated or mixed with an equal quantity of very hot water.

"I know nothing at all equal to Friedrichshall. The LONGER it is taken the SMALLER is the quantity necessary to effect the purpose."

SIR HENRY THOMPSON, F.R.C.S., Lond.

Of all Chemists and Mineral Water Dealers. [2]

HEARON, SQUIRE & FRANCIS,
Wholesale and Export Druggists.

Established



1714.

FOOD FOR INFANTS IN BULK.

PHARMACEUTICAL PREPARATIONS IN VACUO.

MEDICATED BISCUITS—"HERON," Nos. 1, 2, & 3.

5 COLEMAN STREET, LONDON.

MUMFORD'S
PURE FULLERS EARTH

Finest powdered, 14s. per cwt.; in 7, 14, 28, 56 lb. Packages, 10s. per cwt net, bag included, delivered free in London. Samples post free. [3]

G. S. MUMFORD, STEAM MILLS, FARRINGTON ROAD, LONDON, E.C.

EDITORIAL NOTES.

THE BOARD OF INLAND REVENUE REPORT.

THERE are always several points in the Report of the Board of Inland Revenue of interest to chemists and druggists. That body, which accounts for more than half of the national revenue, deals not only with the massive returns of excise and income tax, but also concerns itself with minute care with patent medicine stamps and coffee mixture labels, and no critic can accuse the Board of fulfilling its duties in a perfunctory manner, however insignificant may be the financial result. Income tax last year produced 15½ millions, excise yielded 25½ millions, stamps 11½ millions, and land tax and inhabited house duty 1 and nearly 2 millions respectively. Patent medicines always seem to be a pet subject with the Board, and are touched upon in the report in an evidently affectionate tone. "The increase under the head of Patent Medicine Stamps," we are told, "is considerable, as usual, and shows how these medicines continue to gain in public favour." The increase is certainly remarkable. There are now 20,279 licensed dealers in patent medicines. This is 267 more than there were last year, and close on twice as many as in 1865. The number of patent medicine stamp labels issued has steadily increased from 7,074,668 in 1865 to 21,468,718 in the year ending March 31, 1886. Throughout that period there has never been a year which has not recorded an increase in their revenue from this source, which now figures for 5,070% for licences and 179,071% for the stamps. There are 8,087 licensed retailers of methylated spirits in the United Kingdom, and 866 chemists licensed to use stills. The total quantity of methylated spirits used during last year was 2,447,798 gallons; in the previous year, 2,334,835 gallons.

Appended to the general report is the usual report from the Principal of the Somerset House Laboratory (Dr. James Bell). The total number of samples analysed in that establishment during 1885 reached 26,175, or 148 less than in 1884. Of this total the samples referred under the Sale of Food and Drugs Act, numbered during the year only 37. In 1884 there were 51 such samples referred, and the same number in 1883. The samples in 1885 consisted of 20 samples of milk, 5 of butter, 11 of pepper, and 1 of ginger. The Somerset House chemists supported the public analyst's testimony in all the cases except 1 of milk and 2 of butter. Among the other interesting items from this report we pick the following: Among 163 samples analysed for the Admiralty some condensed milks appear. All of these were "either inferior to pattern or such as could not be recommended. One sample tendered as 'essence of cream' was simply 'condensed milk,' containing more than double the amount of water and somewhat less sugar than is ordinarily found in such preparations. "Eleven samples of enamelled ware have been analysed, and in 4 arsenic or lead was present in the enamel in sufficient quantity to render the articles undesirable for cooking purposes. Of 5 specimens of electroplate only 1 contained the amount of silver stipulated in the contract, the others being 10, 23, 41, and 77 per cent. deficient respectively.

"The lemon-juice submitted for approval by the Board of Trade has again been of good quality, although not quite equal to that of last year. It has only been necessary to reject 40 samples out of a total of 580, and the majority of these were of good quality, but had not been sufficiently freed

from pulpy matter to bring the juice into a condition suitable for fortifying and bottling. Of 17 samples rejected for other reasons, 11 did not fulfil the requirements of quality, and to 6 had been added either bisulphite of soda or common salt for the purpose of preservation.

One case of spirit fraud, in which a conviction was obtained (apparently the Leith case reported last year) was strongly contested, several chemists being engaged for the defendants. It related to the presence of methylated spirit in two large vats of presumably duty-paid spirit on the premises of a rectifier. The tests upon which the Government chemists rely for the detection of methylic alcohol were very severely criticised by the opposing chemists, but without shaking the soundness of their conclusions. Fortunately, the results of some of these tests were of such a nature that they could be produced in court, and the wide difference in those yielded by ordinary alcohol and methylated spirit respectively afforded ocular demonstration of the presence of the latter. As the samples contained only about 3 per cent. of methylated spirit or three-tenths of 1 per cent. of wood spirit, the decision in the case affords conclusive evidence of the efficiency of the chemical tests at the command of the laboratory for the protection of the revenue. There have been several cases of a minor character in which methylated spirit has been used in the preparation of tinctures for internal use, or has been flavoured with peppermint for use as a beverage, thus showing the necessity of incessant watchfulness on the part of the surveying officers, in order to prevent the abuse of the privilege of using methylated spirit for trade purposes.

TRADE-MARK LAW.

TRADE-MARK LAW is making itself rapidly. It is built up in this way: The Comptroller-General refuses to register a particular word or picture as a trade-mark, and the applicant, who has set his heart on that particular word or picture, appeals to some superior authority for an enforcement of his rights. It has not yet been proved that trade-mark owners get anything like an equivalent for the public service they render by their actions. How much of a label becomes exclusive property if registered as a trade-mark, and how much of it infringers may copy; how nearly designs may be imitated; what would be the position of a registered trade-mark which should be an unquestionable imitation of a registered one; whether Courts would still protect owners of unregistered and perhaps unregistrable trade-marks—these are specimens of questions which may be depended upon to furnish litigation in the future under this interesting Act.

Meanwhile, as we have said, preliminaries are being settled, the ground is being staked out, and conditions agreed upon. The recently-reported cases have defined the law considerably. First, Mr. Van Duzer got it established that a tradesman may adopt the name of a place as a trade-mark, provided, be it understood, that neither he nor his product has any association with that place. The rights of persons who may have association with that place will have to be decided in the future. It is not surprising that after that decision the Comptroller was reluctant to register as a trade-mark a drawing actually representing the thing sold. This was what he was asked to do when the "dome blackhead" trade-mark was submitted to him last week. That trade-mark seemed to him too descriptive. But three judges found an ingenious way of avoiding the dilemma. They said it only "happens" that this drawing and the article sold are similar the one to the other; the applicants are quite at liberty to use the mark for something of a quite different shape; therefore we grant the registration. Why the Comptroller should have refused the word "Electric" as applied to velveteens we cannot per-

ceive; surely he did not suppose that term was descriptive. But that case brought out an important consideration, namely, that if there is no injustice without a remedy, there is no remedy without payment. Messrs. Leaf & Co. had to pay all their own law costs for getting the Comptroller to do what seems to us and seemed to the Court to be his simple duty to do.

But the case reported this week is in an important sense of more moment than either of the others. The "Normal" Company wished to get the word "Normal" registered as a trade-mark for certain products. The Comptroller thought the word should not be registered, and refused registration. The company appealed to the Court, and were met by the objection that the Court had no jurisdiction. The Court itself recognised that plea, and henceforward, we presume, there will be no more public appeals from the Comptroller's decision as to the right of registration unless a trial in a Court shall be specially authorised by the Board of Trade. The Act is a little ambiguous on this point, but in the interests of traders it is to be hoped that we have got the correct interpretation of it. In matters of this kind, where no very serious damages can result, it is much to be desired that people should be protected against themselves. The Board of Trade is as likely to give a fair decision as a court of law; and any check to the lawyers is a public benefit.

INVESTIGATION OF MEDICINES.

THE Collective Investigation Committee of the British Medical Association is a body which does much good work in the interests of medical science; and in the department of therapeutics its labours should be followed by all pharmacists. About a year ago the Committee adopted several important suggestions by Dr. B. W. Foster, which are now being acted upon by the Association. Dr. Foster's propositions were:—

1. That additions to the Pharmacopœia ought to be made, not on the experience or reading of a few persons, but on the general experience of the profession. One man may now write up a new drug, make it popular, and get it into use. He would like the British Medical Association to be the authority to speak on new drugs on behalf of its members.

2. To carry this out, he suggested that the Therapeutical Section might, at every annual meeting, have a discussion on new remedies, and select a list for trial during the next twelve months.

3. The Collective Investigation Committee might receive such list, and organise careful therapeutic testings of the proposed remedies, analyse the replies, and report at the next annual meeting.

4. In this way each year would place before the profession some sound opinions on the efficacy of some few new drugs (three to six, say), and at the end of four or five years an authoritative list might be published by the Collective Investigation Sub-committee as an addendum to the existing Pharmacopœia.

5. When the next Pharmacopœia came to be published, the accumulated knowledge of the Association would be at the service of its framers, and the profession would have practically decided on the drugs most valuable and most worthy of admission.

- 6, and lastly. There would be gradually formed an authoritative list of remedies worthy of being used, and the busy practitioners would look to the annual reports for the best information on new remedies and new modes of treatment.

At Brighton this week valuable reports on Terebene and Hamamelis were submitted. Could not a committee of pharmacists, appointed by the British Pharmaceutical Conference, for example, be associated with medical men in this

important work? It is not likely that therapeutic results will be invariable, and it would be always desirable to determine the pharmaceutical value of the preparations employed. In many instances the pharmaceutical report would undoubtedly strengthen the therapeutic one. The fact mentioned by Dr. Foster, that one man may write up a new drug, make it popular, and get it into use, is significant. The chances are in that case that a special preparation has been employed which always gives the same results; it frequently occurs, when the remedy becomes popular, and other makers enter the field, that disappointment is experienced: we want, therefore, recognised pharmaceutical processes as well as reputed therapeutics.

ADELAIDE JUBILEE INTERNATIONAL EXHIBITION.

IN a recent issue we published particulars of the Jubilee International Exhibition to be held at Adelaide next year. We now call attention to a pamphlet issued by the Exhibition Commission, 8 Victoria Gardens, Victoria Street, S.W., which sets forth the object and nature of the exhibition, gives a synopsis and general classification of exhibits, and contains the names of the promoters and officers. Applications for space will be received until January 1, 1887, and forms of application may be obtained from the Secretary at Adelaide, or from the Secretary to the London Commission. In the case of Governments intending to take an official part in the exhibition, an intimation to that effect must be received by the London Secretary not later than October 1, 1886. As regards inventors, they are protected by law, provided that application for a patent is lodged within six months of first exhibition.

A direct line of railway, seven miles in length, delivering goods on the ground, will connect the exhibition buildings with the wharves at Port Adelaide, alongside which vessels drawing 22 feet of water may discharge cargo into the railway trucks.

The year of the exhibition will be of special importance to the Australasian Colonies, from the fact that it will witness the union of the capitals of South Australia, Victoria, New South Wales, and Queensland by a continuous line of railway, 1,760 miles in length—viz., from Adelaide to Melbourne, 508 miles; from Melbourne to Sydney, 574 miles; and from Sydney to Brisbane, 678 miles.

The pamphlet contains a neat map of the Australian Continent and a coloured plan of the exhibition, the grounds of which are situated between the town proper and the Torrens river, in the immediate neighbourhood of the university, the zoological and botanical gardens, and the public library.

PROTECTION IN GERMANY.

SOME years ago Germany adopted protection as a means of improving trade, and since then duties have been frequently raised where it was found that the import tariff was not yet high enough to keep foreign competition out of the field. But, although the tariff is a tolerably stiff one, there is no end to the agitation of representative bodies from local centres of industry to obtain a further increase of duty on the particular classes of goods in which their respective districts are mainly interested. Thus, for example, a report just issued by the Chamber of Commerce at Offenbach-on-Main asserts that the German "vaseline" manufacture is altogether unable to make headway, and that there is no prospect of improvement unless the import duty on prepared "vaseline," which is now the same as that on the raw material, viz., 10 marks per 100 kilogrammes (about 5s. per cwt.), be raised to

at least 15 or 20 marks. At the present rate of duty the German manufacturers stand no chance against the foreign makers, especially the Americans. The maximum yield of refined vaseline from the raw material, they say, is 75 per cent.; but the value of the prepared article imported from abroad is treble that of the crude vaseline. The coolness of adopting the American makers' trade title, as certain German manufacturers seem to have done, and then trying to oust the original owners from the German market altogether, is beyond ordinary commercial rivalry. From another trade report we find the Breslau Chamber of Commerce lamenting the fact that one of the principal chemical works in that city, the "Silesia, Verein chemischer Fabriken," which commenced the manufacture of bichromate of potash a short time ago, cannot make that branch pay, owing to the severity of British competition. The German manufacturers are making desperate efforts to keep their British rivals out of the market by always quoting lower than the latter, and a war between British and German makers is now in progress, of which the result cannot be prognosticated.

THE CARLSBAD MINERAL WATERS.

IN our issue of July 31 we mentioned that seven applications for the lease of the Carlsbad springs had been received by the Town Council, and published particulars of the offers and the names of applicants. The Town Council referred the applications to a committee, who have, after due consideration, unanimously pronounced in favour of the tender of Julius Schottlaender, of Breslau, the highest bidder. The lease has consequently been assigned to this gentleman, who represents the firm of Loebel Schottlaender, the former lessees, at an annual rental of 175,000 florins for a period of fifteen years. Next to the successful applicant came the London Apollinaris Company, who offered 150,000 florins per annum. The springs were last leased at 70,000 florins per annum. This advance bears striking testimony to the increased popularity of the waters. When the idea of leasing the springs was first adopted in 1844, after years of vigorous opposition on the part of a large section of the inhabitants of Carlsbad, the municipality thought it good business to obtain 500 florins per annum for the lease, but the lucky lessee "struck oil" uncommonly well in the undertaking; so much so, that he was glad to pay a tenfold increase of annual contribution in 1847, and again augmented his payments to 7,000 florins a few years later on. By that time the fact seems to have dawned upon the authorities that there was money in the business, and when the lease next expired they advertised extensively for tenders, with the result that a contractor was found willing to pay 14,000 florins per annum. From that figure the enormous advance to 70,000 florins was made, which has now been again increased to 175,000 florins.

LEAD IN TINNED PROVISIONS.—Dr. Rabchevski, of St. Petersburg, has published the results of a series of investigations made on various kinds of tinned provisions, with the view of determining the suitability of food preserved in this way for the purposes of the Army commissariat, especially when on active service. He found the tinned plates in all cases quite free from lead. The solder contained lead varying in amount from 60 to 70 per cent. The chemical examination of the contents of the tins was conducted by Pouchet's method, and showed that, while some classes of food, such as roast beef, were quite free from lead, others, such as sour cabbage, contained very appreciable quantities of lead, in one case as much as 0.327 per cent. The conclusion arrived at is that tinned provisions should only be used in case of urgent need, and for a very short time.

Scientific Notes :

On Chemistry, Pharmacy, Botany, Materia Medica, &c.,
Original, Selected, and Translated.

SOME NEW DRUGS.

ALMOST all parts of the plant *Anona muricata* L. have a medicinal value. Thus a decoction of the root is used as an antidote for fish-poisoning, and the bark serves as an astringent. The leaves are useful in softening abscesses, and as the seeds in the fruit contain tannin, they are employed as an astringent, or a wine can be prepared from them by fermentation, which is said to be beneficial in cases of diarrhoea. Several kinds of *anona*, such as *polyalthia*, *xylopia*, *artobotrys*, are also highly prized as medicines. Most of these plants have a sharp aromatic odour and taste. The flavour of the fruit resembles that of oil of turpentine.

EUPATORIUM.—Many kinds of this species have an aromatic odour and bitter taste, the latter being so intense that *E. amarissimum* is used in Mexico, *E. villosum dulce* in Jamaica as a substitute for hops. *E. ayapana* is a good remedy for indigestion, and an infusion of it is said to give relief to patients suffering from chest complaints, and has been employed on the Isle of France as an antidote for cholera.—*Journ. S. C. I.*

CAUSTIC SODA BY ELECTRICITY.

PROFESSOR ROTONDI, of Turin, has published a method for producing caustic soda by passing an electric current in a concentrated solution of common salt. If fatty materials mixed with common salt are employed, the current occasioned by a dynamo causes saponification, while at the same time the liberated chlorine may be used for bleaching.

WATER OF CRYSTALLISATION.

W. W. J. Nicol, M.A., D.Sc., F.R.S.E. in a paper read at a meeting of the Chemical Society on June 17 replied to Professor Pickering's criticism of the author's experiment on the molecular volumes of salts in solution. The author maintained the accuracy of his experiments and of the conclusions derived from them, which are that when a salt is dissolved water of crystallisation is indistinguishable from solvent water, both having the same volume; and that water of constitution has in solution a volume markedly different from that of solvent water. Hence it seems certain that water of crystallisation does *not* exist in solution, but that the whole of the water present is in the same relation to the salt, no hydrate, definite or indefinite, existing in solution. This is supported by experiments on supersaturation, the author having prepared supersaturated solutions from dehydrated salt and *cold* water; the salt dissolving with evolution of heat, but without the formation of a hydrate.

THE ELECTROLYSIS OF AQUEOUS SOLUTIONS OF SULPHURIC ACID.

WITH special reference to the forms of Oxygen obtained. By Professor H. McLeod, F.R.S. [Read at a meeting of the Chemical Society on June 17.]

The experiments were instituted to determine the quantity of ozone that can be obtained by electrolysis. The electrolysis was carried out in a U-tube, and the ozonised oxygen passed through a tube containing a solution of potassic iodide, the oxygen being afterwards collected. The quantity of ozone was determined by acidifying the potassic iodide solution and decolourising by a standard solution of sodic thiosulphate. In the electrolysed acid an oxidising substance is present which is not hydroxyl, but is probably Berthelot's persulphuric acid. The amount of this "active oxygen" was found in the same way. Acids were used of relative densities varying between 1.025 and 1.7. The maximum quantity of ozone was obtained with solutions about 1.075 or 1.1 in density, the electrolytic oxygen containing about 16 or 17 per cent. of its weight of ozone. The maximum quantity of "active oxygen" in the oxidising substance referred to was produced with acids about 1.2 to 1.5 in density, the proportion being 16 or 17 atoms to 100 atoms of

hydrogen. The solubility of ozone was determined by one experiment, and found to be much greater than that of oxygen.

Commenting on this paper, Mr. FRISWELL said that Professor McLeod's observation explained a fact that had come under his notice years ago, viz., the constant presence of chlorine in muriatic acid.

THE ESTIMATION OF FREE OXYGEN IN WATER.

By Miss K. I. Williams and Professor W. Ramsay. [Read at a meeting of the Chemical Society on June 17.]

The authors have instituted a comparison of Schützenberger's methods of estimating free oxygen in water with each other and with the gasometric method with favourable results. Schützenberger's first method, which consists in adding sodium hyposulphite to a measured quantity of water, using indigo-carmin as an indicator, is stated by him to estimate only half the amount of free oxygen; his second method, in which water containing free oxygen is added to indigo-white, turning it blue, and the amount of oxidised indigo-white is estimated by hyposulphite, was regarded by him as the only accurate one. The authors disprove the assertion, and show that there is a preliminary stage in the first process when colour disappears; but that on standing for some time a blue colour appears, to destroy which permanently requires such an addition of hyposulphite as to make the total amount equal to that employed in operating according to the second method. The proportion of hyposulphite used during the first stage of Method I. to the total amount used is 3 to 5; but they believe that this proportion was conditioned by the temperature and dilution prevailing during the experiments. It is also shown that hyposulphite of soda reacts to some extent with hydrogen dioxide, thus negating the statements of Schützenberger's of König.

THE PRESENCE OF A REDUCING AGENT, PROBABLY HYDROGEN PEROXIDE, IN NATURAL WATER.

By Professor Ramsay. [Read at a meeting of the Chemical Society on June 17.]

Distilled water, as well as ordinary tap-water, has a reducing action on potassium permanganate. The amount of the reducing agent is increased by evaporation, even when all possibility of contamination with solid organic impurity is excluded. The amount of reduction is far too great to be ascribed to the nitrites present in the water. The experiments described in the paper show under what circumstances and to what extent this substance—which is probably hydrogen dioxide—is produced. If this supposition be correct and the active substance in natural water be really hydrogen peroxide, it becomes of importance to ascertain its action on organic impurities contained in many natural waters. Experiments were therefore made quantitatively on the action of dilute solutions of peroxide of hydrogen on urea, and it was found that the urea is slowly oxidised on standing; the rate of this action has also been measured.

DETECTION AND ESTIMATION OF IODINE, BROMINE, AND CHLORINE.

By M. Dechan. [Read at a meeting of the Chemical Society on June 17, 1886.]

To separate iodine from a mixture of chloride, bromide, and iodide, the author distils with a concentrated solution of potassium bichromate (40 grammes $K_2Cr_2O_7$ to 100 c.c. water); on repeating the distillation, after adding a small quantity of sulphuric acid, the bromine only passes over, provided that the solution be not too concentrated. The apparatus is therefore so arranged that by means of a stop-cock funnel water may be added whenever necessary. The following results are quoted:—

Iodine		Bromine.		Chlorine	
Taken	Found	Taken	Found	Taken	Found
0.01443	0.01441	0.0126	0.01254	0.0123	0.0122
0.0288	0.02833	0.0252	0.0250	0.056	—
0.0571	0.05628	0.0504	0.05009	0.194	—

Foreign and Colonial.

THE UNIVERSITY OF SYDNEY has received benefactions to the amount of 317,414*l.* 12*s.* 6*d.* This includes the Challis bequest, which is estimated at 180,000*l.*, but is expected to reach 200,000*l.*

THE CHEMISCHE FABRIK RHEINAU at Mannheim has attempted to raise 50,000*l.* on preference bonds bearing 5 per cent. interest, but the subscription has failed owing to insufficient response.

THE BOMBAY VETERINARY COLLEGE.—The Bombay Veterinary College was expected to commence operations on July 1. Veterinary-Surgeon J. H. Steel has been appointed superintendent of the new institution.

DESTRUCTION OF A FRENCH OIL MANUFACTORY.—The establishment of Messrs. Marchand Frères, at Dunkirk, one of the largest oil-works in France, has been destroyed for the greater part, and the loss is estimated at 2,500,000*fr.*

GAMBIER AND PEPPER GROWING IN NORTH BORNEO.—Grants of 200*l.* each have been offered by the Government of British North Borneo and by the Chinese community at Kudat, for the purpose of encouraging the planting of gambier and pepper in that settlement.

LADY PHARMACISTS.—In Holland ladies are gradually usurping the occupations of the pharmaceutical assistants. The periodical State examinations have just been held, and the result is highly favourable to the fair sex, and startling to mankind generally. Out of a total of 55 candidates, 19 out of 31 female candidates, and only 8 out of 24 male candidates, were successful.

LADY DOCTORS.—The Continent boasts an important contingent of medical ladies. No fewer than one hundred and seventy women are at this moment inscribed at Paris *en cours d'études*, though some of these have died or have withdrawn. In Switzerland, since 1874, fifty-five women have received the M.D. degree, of whom seven are British.

CROTON TREES.—It is well known to be dangerous to place cattle or horses in the neighbourhood of seed-bearing croton trees, and it is said that horses have been killed by eating a mouthful of the seed snatched from a tree in passing. In Ceylon the experiment is now being tried of erecting fences of croton trees round plantations which are liable to damage from trespassing buffaloes.

DISCOVERY OF PHOSPHORITE IN NORTH AFRICA.—A layer of phosphorite has been discovered in the southern part of Tunisia, near the Algerian frontier. The phosphorite is found in cylindrical coprolites of all dimensions, in large yellow balls of several pounds weight, and in smaller oval and flat lumps. These three different varieties yielded 32 per cent., 24 per cent., and 1.5 per cent. phosphoric acid. It is not yet known whether it will pay to work the layer.

FIRE AT JULIUS GROSSMANN'S CHEMICAL WORKS.—At the beginning of last week a loud explosion was heard at the chemical works of Julius Grossmann, in Billwaerder, near Hamburg, originated by the bursting of bottles during the boiling of camphor. The ovens caught fire, and the manager, the under-manager, and three workmen were severely injured in their efforts to extinguish the fire, which were, however, successful.

EXPERIMENTS WITH NITRATE OF SODA MANURE IN FRANCE.—The director of the agronomic establishment of the Nord communicated, at a late meeting of the Agricultural Society, his experience that nitrate of soda yields a much better result if applied to the soil as a solution than in dry condition; five parts in solution being equal to eight parts of the dry material. The same authority also states that in most cases nitrates are preferable as manures to ammonia salts.

THE AMSTERDAM QUININE WORKS.—The *Pharmaceutisch Weekblad voor Nederland* states that the Amsterdam Quinine Works may soon be compelled to stop working; but that efforts are being diligently made by the directors and a few gentlemen interested in the cinchona trade to avert the threatened disaster. If the works are closed it is feared that

the Java bark would be consigned to Germany instead of to Holland, and the latter country would thereby lose an important and growing branch of commerce.

RUSSIAN CHEMICALS.—The manufacture of animal charcoal in Russia has increased very considerably of late, thus rendering the sugar-refineries in that country almost independent of Austria so far as this article is concerned. The same is the case with hydrochloric and sulphuric acid, which formerly were important items of Austrian trade with Russia, but have ceased to be so. Two new factories of hydrochloric acid have recently been opened at Odessa, and one each at Warsaw and Moscow. The only Austrian factory which is still able to compete with the native acid in Russia is the Chemische Fabrik at Hruschau in Moravia.

THE GERMAN SPIRIT INDUSTRY.—According to *Kühlow's German Trade Review* a meeting of distillers of Central Germany was held at Leipzig on July 10, in order to consider the reduction of production during the next season and the increase of prices. A resolution in favour of 20 per cent. reduction was adopted. In the province of Posen, also, a great effort is being made to decrease the production of spirit. It has been decided by a meeting of distillers to reduce 20 per cent. on the average production of the last five years. On July 14 a meeting was called at Stettin to decide definitely on the establishment of a spirit bonding-house at Stolpmünde.

NEW FIRMS.—*E. Kempf*, Steinau-on-Oder, Germany; drugs and mineral waters. *Dr. L. Grote*, Hanover; drugs and chemicals. *Carmouche & Déprez* (successors to Ilugot), Paris, 19, rue Vieille du Temple; pharmaceutical specialties. Deed of June 12, 1886; term, ten years; capital, 150,000*fr.* *Guetteau & Cie.*, Paris, 32, rue St. Paul; pharmaceutical products of Girolamo l'agliano, of Florence. Deed of June 19, 1886; term, nine years; capital, 24,000*fr.* of which 18,000*fr.* "en commandite." *Vandon, Verdier & Billard* (successors to L. Prudhon), Rouen; dyes, varnishes, &c. Deed of June 15, 1886; term, sixteen years; capital, 40,000*fr.* *Collet & Lafay*, Roanne, France; drugs and spices. Deed of July 6, 1886; term, eleven years, four months; capital, 10,000*fr.* *Ferrary & Cie.*, Marseilles, 5 rue des Dominicains; drugs and spices. Deed of July 1, 1886; term, ten years; capital, 15,000*fr.*

RUSSIAN PETROLEUM ITEMS.—The Russian Government are doing their utmost to place the Caucasian petroleum in a position to compete with the American product, and have instructed all the local authorities and the railway companies in southern Russia to facilitate the export of the article wherever possible. The cistern-waggons in which the oil is carried will in future be constructed in such a manner as to enable them to run on the narrow-gauge railways of Austria and Germany as well as on the wider Russian lines. Meanwhile the Antwerp firms interested in Russian oil are pulling the other way. They have just refused to give the required guarantee that they shall furnish correct statistics concerning the movements in Russian petroleum, in consequence of which it has been decided by the statistical authorities to ignore the imports and exports of Russian petroleum in Continental ports altogether, and not to include this oil into any official statistics.

THE ADVANCE IN QUICKSILVER.—Such an every-day domestic event as a wedding would not be expected to affect the market, yet one of the causes of the recent advance in quicksilver is said to be a marriage. When such an important affair as the wedding of a ruler of the Celestial Empire is announced the etiquette of the country demands that the innumerable temples throughout the land shall receive a fresh dress, and as this dress consists principally of the sulphuret of mercury, it can well be imagined that the consumption of this brilliant pigment for the purpose would be enormous. From this it will be understood that the approaching nuptials of the Emperor of China has necessitated a tremendous outlay of vermilion, and a consequent demand for its chief ingredient. At any rate the recent demand from China, which included orders for four thousand bottles of the metal, whatever it was needed for, is reported to have been at the bottom of the rise in the price of quicksilver, though there were other potent causes at work which might have eventually accomplished this end without the timely assistance of the ante-nuptial preparation.—*Oil, Paint, and Drug Reporter.*

TURKISH CUSTOMS DUTIES.—An official declaration has been issued to the effect that protective customs duties will be adopted by Turkey. The rates are not yet fixed, but the new duties are expected to be very high.

JAPANESE TARIFF.—Negotiations are at present going on between the Japanese Government and Ministers of Germany, Austro-Hungary, Great Britain, France, and most other European Powers relative to a general Japanese customs tariff, of which the draft has just been prepared.

POISONED HONEY.—At a recent meeting of the Dresden Agricultural Society, a local pharmacist reported that in a neighbourhood where the deadly nightshade grew abundantly the bees had incorporated with the honey sufficient poison from these flowers to account for numerous and occasionally fatal cases of poisoning.

THE GERMAN PHARMACEUTICAL CONGRESS.—The following scientific lectures will be given at the annual meeting of the above Society at Düsseldorf:—On the Present Position of Alkaloid Research, by Prof. Schmidt, of Marburg; on Ptomaines, by Dr. Beckurts, of Brunswick; on the Testing of Pharmaceutical Preparations, by Mr. Schlickum, of Winnigen; on Thallin, by Dr. Vulpius, of Heidelberg; while Drs. Leaken and Bellingrodt have also promised scientific communications.

THE EXHIBITION AT SARAGOSSA.—The new Spanish Treaty will no doubt render the exhibition which is about to be opened at Saragossa (Spain), of exceptional interest to British traders. Foreign exhibitors are expressly invited. The opening of the exhibition is fixed for September 5 next. Applications for space will be admitted until the 20th, and articles may be sent in until the 30th August. The Spanish railway companies have granted a reduction of 50 per cent. in the rates of conveyance to and from all packages containing objects intended for exhibition. Information may be had from "Don Modesto Torres Cervello, secretario, Exposicion Aragonesa, Zaragoza."

Dr. S. A. RICHMOND, who recently shot dead Colonel J. W. Strong, manager of the St. Joseph *Daily Herald*, was the manufacturer of "Samaritan Nerve"—a medicine which has had an immense sale in the Western States. Dr. Richmond was an illiterate man, and had made a large fortune from the nerve, and established the World's Hotel at St. Joseph, which is the most magnificent in the West. Subsequently he made an assignment, and P. H. Hubbard, the advertising agent in New Haven, Conn., sued him for \$55,000, balance due on a \$100,000 contract. Colonel Strong, Colonel Tyler, and Winslow Judson were Hubbard's attorneys, hence the doctor's enmity towards them, and his murderous and fatal assault on Colonel Strong.

CALIFORNIAN HONEY.—An American correspondent writes that the Californian honey crop of the season just terminated has been a very small one, and does not exceed two-thirds of the yield in 1884, which, for quantity, was about the best on record in that State. It is thought that the short crop is to some extent accounted for by overstocking, for in riding through the valleys and canyons of the bee-keeping region one passes a continual succession of "bee ranches," so close together that it seems a wonder where flowers are to be found in sufficient quantity to supply the bees with nectar. Some of the most successful beemen of the State think that at least three miles should intervene between any two bee ranches, and that less than this will not allow sufficient range for the bees, even in seasons as prolific of bloom as has been the present one. It is certainly remarkable that in San Bernardino county, where this theory obtains, no complaint has been noticed of any shortness in the honey yield.

RESULT OF THE COMITÉ SALITRERO'S PRIZE COMPETITION.—The award of the jury in the competition for a 500l. prize offered by the Comité Salitrero, or committee of the Saltpetre Producer's Association, at Iquique, in Chili, of which particulars were given in THE CHEMIST AND DRUGGIST of April 15, 1886, has just been published. The prize was offered for the best popular essay showing the importance of nitrate of soda as a manure, and the best mode of its employment. The decision rested with a jury composed of Professor L. Grandeau, of Nancy (France); Professor Adolf Mayer of Wageningen (Holland); Professor A. Petermann, of Gembloux (Belgium); Professor G. Thoms, of Riga (Russia);

Professor Paul Wagner, of Darmstadt (Germany); and Mr. R. Warington, of Rothamsted, St. Albans (United Kingdom). Thirty-one answers have been received, of which fourteen were in English, thirteen in German, and four in French. The prize has been divided between two competitors, in the proportion of 350l. to Dr. A. Stutzer, director of the Agricultural College at Bonn (Germany); and 150l. to M. Adolphe Damseaux, professor at the Agricultural Academy at Gembloux, in Belgium. A second prize of 500l. is offered for the best essay on the same subjects, based on new experimental researches, conducted by the author himself. Competitions for this prize may be sent to one of the above-named jury-members up till January 1 next.

POPPY CULTURE IN MINNESOTA, U.S.A.—Mr. E. Weschke, of New Ulm, made experiments last year in regard to the culture of the poppy, and his results have been recorded at length in the *Bulletin* of the University of Wisconsin. A large variety of seed was obtained from European and other sources, and planted at intervals, and several varieties came to perfection. The fruit was most perfect in the *Papaver somniferum*, while in some others the capsules were so small that they were of no service. Mr. Weschke found, when he began to collect the poppy juice, that longitudinal cuts afforded the most, a circumstance due to the structure. There was experienced considerable difficulty in collecting the opium, but ultimately a fair quantity was obtained. It possessed a rich, dark brown colour, had a very bitter taste and strong odour, and when dry, a conchoidal fracture. The morphia value was determined by Fluckiger's process, and the other constituents were also determined, with the following results:—

Morphine	15.230 per cent.
Narcotine	0.325 "
Codeine	0.416 "
Meconic acid	3.500 "

This opium was obtained from the variety of *Papaver somniferum* which is the chief source of the foreign drug. This species would also seem to be the only one adapted for cultivation in northern latitudes for the purpose of producing opium, since the seeds obtained from plants grown in France and Germany did not germinate, or only very sparingly, while the true opium poppy flourished well.

NEW PHARMACY REGULATIONS IN ROUMANIA.—The *Pharmaceutische Post*, in a late issue, gives a full translation of a decree appearing in the Roumanian official gazette of June 6, whereby pharmacies in the Roumanian kingdom are subjected to stringent regulations and control. The decree is divided into six heads, treating respectively of the internal arrangements of the pharmacy and mode of conducting the business; of the staff; of the duties of the staff; of the dispensing of medicines; of the authority exercising control over pharmacies; and of offences against the new regulations. The following are the most important provisions:—All pharmacies must be situated in accessible streets, be easily noticeable, and bear the word "Farmacia" and the name of the owner in plainly legible characters. A pharmacy must be open to the public daily, without exception, from 6 A.M. to 11 P.M., and for doctors' prescriptions between 11 P.M. and 6 A.M., upon ringing the night-bell. Every pharmacy must contain a dry dispensing room, a well-ventilated pharmaceutical laboratory, a dry and properly situated stock-room, and a cellar for storing articles requiring a low temperature. All the reagents and the testing apparatus mentioned in the Pharmacopoeia must be kept, as well as all official medicaments in quantities sufficient for at least one month in ordinary times, and three months in times of epidemic, and there must be also a library consisting of the commercial books of the pharmacist and books of instruction for his apprentices. The personnel of a pharmacy is to consist of the head of the firm (who is forbidden to conduct more than one establishment); assistant-apothecaries (Magistern der Pharmacie), assistants, and apprentices. With regard to the latter the provision is made that in every pharmacy where apprentices are employed one at least shall be of Roumanian nationality. The head of the business is directly responsible to the Minister of the Interior for the proper conduct of his business, while the authorities charged with the control and supervision of the pharmacies are the local Board of Health and the principal medical officer of the district.

Medical Gleanings.

SNUFFS FOR CORYZA.

RABOW (*Deutsch. Med. Wochenschrift*, 5, 1836) has repeatedly seen benefit from the following powders, used like ordinary snuff, which also they resemble in appearance, and appear to be more pleasant to use than Ferrier's White Bismuth Snuff:—

(1) Menthol, 2 parts; roasted coffee, 50 parts; white sugar, 50 parts; mix. (2) Cocaine hydrochlorate, 1 part; roasted coffee and white sugar, of each 50 parts; mix.

LANOLINE & CÆSYPUS.

THE letter which appeared some time ago in this Journal from Mr. F. Gall has attracted considerable attention to the historical position of wool-fat as a medical application. Dr. Hill (Williamsport, Pa.), writing to the *Medical and Surgical Reporter*, states that in an old book, published in 1685, he finds the following description:—"Cæsius, sordes, or filth sticking to the wool. It is thus prepared: Take the greasy Wool from the Neck, Shoulder-pits, and Thighs of the Sheep, put it into very warm water for eight or ten hours, then boyl and stir till all the fat and greasiness is in the water; press out the wool, pour the fat and filthy water from one vessel to another till it froth; let the froth settle, take away the fat that swims on the top; pour and re-pour it as before till it froth; which repeat so often till no more froth appear, nor fat swim at top; then take the fat with the froth, and wash it up and down with the hands in clear water so often and so long till the filth is washed from it, which is when the water remains clear and the fat white, and being tasted, does not bite your tongue." The allusion here to colour and neutrality is noteworthy. The excellent and so-thought novel idea of treating skin-diseases through the medium of "medicated soaps" also finds precedence in the following "soap against the itch," taken from the same book: "Sapo ad l'urritum." "Take sal regal, ℥ss.; burnt alum, Benjamin, liquid storax, ana. ℥ij.; flos. sulphuris, ℥ij.; storax, calamita, litharge, ana, ℥ss.; dock roots, ℥j.; mercury precipitate, gr. v.; oyl of cloves, gtt. iij.; Venice soap, q. s. Make wash balls."

POISONING BY COMMON SORREL.

It will be remembered that some weeks ago a boy died from the effects of eating a large quantity of common sorrel (*Rumex acetosa*), and that death was supposed to have been hastened by his having drunk a quantity of soap and water. The particulars of the case so far as they were made public have already been recorded in *THE CHEMIST AND DRUGGIST* (June 19, p. 587.) In the *Lancet* of July 31, Professor Suckling, of Birmingham, who was called in shortly before the boy's death, gives a full account of the case, the microscopy and subsequent examination of the vomits, visceral contents, &c., all of which contained sorrel as well as minute quantities of soap. Chemical examination by Dr. Bostock Hill failed, however, to reveal the presence of oxalic acid; and, in seeking for an explanation of the death, Professor Suckling says "that slow poisoning must have been going on all night, and that the swallowing of fluid was followed by a fresh absorption of the poison, which caused immediate collapse. Any speculation as to the chemical action between the soap and water and the sorrel helps very little in explaining the collapse immediately following its ingestion, seeing that the soda salt, if formed, is only very slightly more soluble than the potash salt. Mitscherlich estimated that the proportion of binoxalate of potassium present is 75 per cent. of the fresh plant, and that 1 oz. of fresh sorrel contains about 3 grains of that salt. It seems impossible that such a small quantity of binoxalate of potassium—even supposing that the child ate 2 oz. or 3 oz. of the plant, which would be a great deal—could prove fatal. It may be that there is some other poisonous substance present not known. Dr. Suckling, however, believes that the death was due to poisoning by sorrel, and the fact that a playmate of the boy, who had also eaten sorrel, was very ill for two or three days goes to strengthen this opinion.

HOANG-NAN IN HYDROPHOBIA.

SEVERAL years ago Hoang-nan—a Japanese remedy for hydrophobia—was introduced into Europe, but was not extensively tried. The drug is the root of an undetermined plant, probably a species of *Strychnos*, and possesses toxic properties similar to strychnine. Now we learn from the *Gazette Médicale de Nantes* that twenty-four cases of rabies have been treated with this remedy by Dr. Barthélemy and other medical men. Two of the patients, who were closely observed by Dr. Barthélemy, presented symptoms of the disease—viz., persistent insomnia, anxiety, hallucinations, barking, &c.—but none have to this date succumbed. The duration of the treatment was about twelve days. In that time from 6 to 8 grammes of the powdered root were taken, 1 gramme per day generally producing the full physiological effects of the drug, when the treatment was stopped by decreasing the dose. Dr. Barthélemy concludes that rabies is communicated much more rarely to the human species than is generally admitted, or that the hoang-nan, administered as above during the period of incubation, sufficiently and efficaciously modifies the nervous system and the entire economy to prevent the evolution of the rabic virus.

SUMMER DIARRHŒA.

THE treatment of summer diarrhœa, particularly of children, has of late years advanced with the times, and the antizymotic rather than the astringent method is gradually being adopted. This method is based upon the old adage, "Remove the cause and the effect will cure." Summer diarrhœa of children is due to the presence in the intestinal track of a ferment, the action and products of which give rise to irritation and consequent liquid evacuations. Recently a French physician suggested the use of benzoate of soda, an active antiseptic, to suspend the action of the ferment. Now Dr. Braithwaite (London) recommends (*Brit. Med. Jour.*, July 24) a mixture of salicylate of soda and sulphate of iron for the same purpose. His prescription is

Ferri sulphatis	℥i.
Sodii salicylatis	℥j.
Glycerini	℥iij.
Aquam ad	℥iij.

Fiat mistura.

[The salts are to be dissolved separately and the solutions mixed.]

Dose: A teaspoonful every hour until the stools are well blackened which happens in about twenty-four hours.

The combination of the mild astringent sulphate of iron with salicylate of soda results in the formation of the dark violet salicylate of iron, there being, however, a considerable excess of sulphate of iron uncombined. Occasionally a dose of castor oil is administered to counteract the astringent effect of the iron salt. Sulphate of iron alone has been long used as a last resort in obstinate diarrhœa. In addition to its astringent effect, it possesses mild antiseptic properties. Commenting on Dr. Braithwaite's communication, Dr. Millard (Edinburgh) states that for six or seven years he has found liquor hydrargyri perchloridi very useful for the same purpose. He gives it in doses of five to ten minims every hour, according to the age of the child. This remedy has also been used for a long time for obstinate dysenteric diarrhœa. Dr. Ringer recommends minim doses of the liquor every hour or half hour, and in many cases it acts as a specific. As mercuric chloride is our most powerful antiseptic, it probably acts in this case in virtue thereof, but homœopaths claim to have originated the treatment on another theory.

TANNINS AS ASTRINGENTS.

AT the instance of the Scientific Grants Committee of the British Medical Association, an investigation has been made by Mr. Ralph Stockman, M.B., assistant to the Professor of Materia Medica, Edinburgh University, into the physiological action of various kinds of tannic acid, of gallic acid, and of pyrogallic acid, with special reference to their action on the circulatory system, and their therapeutic use as astringents. The result has been to show that these substances, as a class, do not possess the actions which are generally considered to constitute an astringent, and that they are, therefore, probably without therapeutic value.



The following applications for Patents have been registered at the Patent Office.

Acid (Sulphuric).—6754.—May 20, 1886.—R. H. Wilson. Improvement in the manufacture of anhydrous sulphuric acid, and in apparatus therefor.

Aerating Apparatus.—9958.—August 3, 1886.—F. Faulkner and W. Adlam. An improved appliance for use in circulating and aerating malt and raw grain worts, distillers' and vinegar brewers' wash, applicable also to other processes.

Aluminium Chloride.—10,011.—August 4, 1886.—H. H. Lake. Improvements in the manufacture of chloride of aluminium and double chloride of aluminium and sodium.

Ammoniacal Liquors.—10,036.—August 5, 1886.—A. A. Croll. Distillation of ammoniacal liquor.

Antimony Ores.—9919.—August 3, 1886.—E. W. Parnell and J. Simpson. Improvements in the treatment of ores containing sulphide of antimony, for the purpose of obtaining such sulphide in a concentrated form, with any gold and silver that may be present.

Beverages.—10,016.—August 5, 1886.—J. McEwen. Filling and syringing artificial, mineral, and aerated beverages, and in apparatus for effecting the same.

Bottles.—9684.—July 27, 1886.—E. L. Lloyd and C. C. Jolly. Improvements in bottle-stoppers. [Complete specification.]

Bottles.—9920.—August 3, 1886.—S. Skeritt. An improved machine for opening bottles or other vessels under pressure.

Bottles.—9944.—August 3, 1886.—G. Burges, senior, and G. Burges, junior. Improved machinery for cleansing bottles.

Bottle-stoppers.—9914.—August 3, 1886.—A. C. Farrington. Improvements in.

Bottle-packing.—9968.—August 3, 1886.—H. H. Lake. Improvements relating to packing for bottles and similar articles.

Boxes.—9667.—July 27, 1886.—J. A. McWhinnie. Improvements in the manufacture of boxes formed of card-board, paste-board, paper, or other analogous material.

Carbonic Acid Gas.—9621.—July 26, 1886.—J. H. Galloway and J. W. Galloway. Improvements in generators of carbonic acid gas.

Celluloid.—9874.—July 31, 1886.—A. M. Clark. An improved process of colouring or producing coloured designs upon celluloid and analogous products.

Charcoal.—9569.—July 24, 1886.—W. Burns. Depurating and decolourising charcoal for purifying sewage, &c., and for decolourising syrups.

Chemical Manure.—9636.—July 26, 1886.—L. A. Chevalet. A process for manufacturing neutral phospho-guano.

Chinolines.—9743.—July 23, 1886.—J. Y. Johnson. (*Carl Rumpff and Farbenfabriken vorm. Bayer & Co.*) Improvements in the manufacture of chinolines or choline compounds.

Chlorine.—10,009.—August 4, 1886.—H. H. Lake. Improved apparatus for the manufacture of chlorine gas.

Distillers' Wort.—9554.—July 23, 1886.—A. G. Fraser and G. Epstein. Improvements in treating distillers' worts in separating yeast therefrom, and in treating yeast.

Distilling.—10,022.—August 5, 1886.—J. Whitley. Apparatus for the distillation and condensation of liquid and gaseous substances.

Distillation.—9630.—July 26, 1886.—L. Béchaux. Improvements in the distillation and the rectification of alcoholic and other liquids.

Dye-goods.—9816.—July 30, 1886.—M. Hilton. An improvement in the use and application of materials such as catechu or gambier combined with animal or vegetable gelatinous matter alone or in combination with bichromate of potash, alum or tannic and gallic acids.

Filters.—9527.—July 23, 1886.—C. A. Clapham. Improvements in filters for domestic purposes.

Filters.—9838.—July 30, 1886.—E. C. Allam. Improvements in filters. [Complete specification.]

Fire Extinguishers.—9620.—July 26, 1886.—J. H. Galloway and J. W. Galloway. Improvements in chemical fire extinguishers.

Galvano-Cauterisation.—9716.—July 23, 1886.—C. A. Buchl. (*Frederick Blabbaum.*) A surgical apparatus for the treatment of diphtheria by means of galvano-cauterisation.

Hair Dyeing.—10,002.—August 4, 1886.—H. de la Place. A process for dyeing hair or restoring its colour.

Hydrate and Salts of Baryta and Strontia.—9304.—July 29, 1886.—The Tyne Alkali Company (Limited) and T. Gibb. Improvements in the manufacture of hydrate and salts of baryta and strontia.

Iodine Manufacture.—9556.—July 23, 1886.—H. J. Haddan. A process for the extraction of iodine and salts from sea-weed and such like.

Iron Solutions.—10,003.—August 4, 1886.—J. S. Kipping and F. Scudder. Obtaining and preserving certain solutions of iron.

Label Damper.—9931.—August 3, 1886.—W. Leggott. Improvements in the method of and apparatus for damping gummed labels.

Medicine.—9597.—July 24, 1886.—T. Johnstone. A medicinal preparation for the cure of "swine-fever."

Medicinal Compounds.—9836.—July 30, 1886.—R. C. Scott. An improved compound or preparation for medicinal or other purposes.

Metal Polish.—10,010.—August 4, 1886.—J. Van Toll. An improved composition for cleaning and polishing metals.

Oil Refining Apparatus.—8494.—June 29, 1886.—R. Tervet. Improvements in apparatus for distilling or refining mineral oils.

Petroleum.—9867.—July 31, 1886.—J. T. King. Improvements in extracting paraffin from petroleum distillate.

Photography.—9652.—July 27, 1886.—T. Turner, Jun. A new or improved method of and means for producing positive pictures from photographic negatives.—9655.—July 27, 1886.—H. J. Allison. (*Carl Paul Stirn.*) Improvement in portable photographic cameras.—9756.—July 23, 1886.—H. H. Lake. (*George McLaughlin.*) Improvements relating to stands or supports for photographic cameras.—9788.—July 29, 1886.—A. Phillips. An improved photographic shutter, and method of operating the same.—9886.—July 31, 1886.—J. W. T. Cadett. Improved arrangements for coating glass or other surfaces used as a support for photographic emulsions.—8821.—July 6, 1886.—G. Lowdon. Improvements in dark slides for photographic cameras.

Receipt Form.—8284.—June 23, 1886.—N. Bottone. A new or improved receipt-form.

Salt.—9661.—July 27, 1886.—C. E. Moncrieff. Improvements in means of raising rock salt from the mine.

Soap.—9591.—July 24, 1886.—J. Thomson. An improved antiseptic soap.

Teeth (Artificial).—9678.—July 27, 1886.—J. J. Ravenscroft Patrick. Improvements in artificial teeth.

Vaporisers.—9877.—July 31, 1886.—I. Greenbury. Improvements in vaporisers and inhalers.

Vinegar.—10,048.—August 5, 1886.—E. Vandenhoff. Improvements in the manufacture of vinegar.

Specifications recently published.(Postage, 1*d.* each extra.)

1885.

- 9,106. W. W. Colley and M. Hart. Rolls of paper for toilet, &c. purposes. 11*d.*
 9,902. W. Bartholomew and E. B. Baker. Bottles, &c. 8*d.*
 10,143. J. A. Drake and R. Muirhead. Filter presses. 8*d.*
 10,558. T. Thompson. Bottle-stoppers. 6*d.*
 10,697. E. Gervais. Corking bottles. 11*d.*
 10,701. W. Kloen. Scales and balances. 8*d.*
 10,762. F. Jacobsen and H. G. Corks, bungs, &c. 4*d.*
 10,971. W. Dodshon. Preventing, &c, sea-sickness. 11*d.*
 11,604. O. Imray. Stopping bottles, &c. 8*d.*
 15,510. H. J. Allison. Drawing off liquids. 8*d.*

1886.

- 2,817. G. W. H. Brogden and E. Casper. Obtaining and treating fibres from the barks of plants of the urtica family, &c. 6*d.*
 7,032. H. H. Lake. Lubricators. 6*d.*
 7,035. J. N. Beach. Dietetic compounds. 6*d.*

The following Patents have become void through non-payment of renewal fees.

- 1,731. A. A. Croll. Manufacture of sulphate of alumina.
 1,833. C. Heckmann and another. Lixivating vegetable and animal materials.
 1,897. A. Browne (*Osborne*.) Pump for acting on liquids.
 1,928. E. De Pass. (*Labouret*.) Treating mineral oils to render them unflammable.
 1,941. W. R. Lake. (*Gladysz*.) Crystallised hydrochlorate of alumina.
 1,948. L. H. Armour. Converting liquid into spray.
 1,992. I. Burdin. Internal stoppers for bottles containing aerated waters.
 2,014. J. T. Armstrong. Treating amylaceous materials for manufacture of starch, &c., and for brewing purposes.
 1,703. J. Townsend. Obtaining soda and potash and their salts, &c.

Personalities.

ON July 30 Mr. A. Pearson Luff was admitted a Member of the Royal College of Surgeons, England.

A COMMITTEE has been formed by the St. Andrew's Graduates Association to secure the election of Dr. B. W. Richardson as a direct representative in the General Medical Council. The practitioners of the North of London have taken steps to return Dr. Glover, and an influential committee has been appointed.

MR. F. H. FORREST, the well-known representative of English houses in Australia, leaves London for Melbourne next week for his fourth journey to the Antipodes. Mr. Forrest will open a branch house in Melbourne for Messrs. A. & F. Pears with a heavy stock, and will also represent Messrs. Allen & Hanburys, W. J. Bush & Co., Clarke, Nickolls & Coombs, and Thompson, Millard & Co. (Limited).

WILLS OF MEDICAL MEN.—The *Lancet* reports the following:—James Milne, M.D., of Huntley, Aberdeenshire, who died on April 25 last, the value of the personal estate in England and Scotland amounting to upwards of 32,000*l.*—Harvey Kimpton Owen, M.D., F.R.C.S., formerly of 20 Palace Square, and late of 60 Belvedere Road, both at Upper Norwood, who died on May 7 last, the value of the personal estate amounting to over 12,000*l.*—Timothy Richards Lewis, Surgeon-Major H.M. Army, late of Bywood, Woolston, near Southampton, who died on May 7 last, the value of the personal estate amounting to nearly 4,000*l.*—John Traill Urquhart Bremner, M.D., Inspector-General R.N., late of 4 Strand Terrace, Walmer, who died on May 8 last, the value of the personal estate amounting to over 2,000*l.*—Arthur Gardiner, M.D., M.R.C.S., formerly of College Square, Belfast, late of 14 Colville Road, Bayswater, who died on April 21 last, the value of the personal estate exceeding 2,000*l.*—William Paton Mackay, M.D., late of the Park, Kingston-upon-Hull, who died on August 28 last, in the Island of Skye, the value of the personal estate exceeding 1,000*l.*

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade-marks to be addressed to H. Reader Laek, Esq., Comptroller-General of Patents Designs, and Trade-marks, Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

From the "Trade Marks Journal," August 11, 1886.

- Circle enclosing prancing horse and words "Dover Iuvicta"; for food for cattle. The Oil-seed Crushing Company (Lim.), 8 Catherine Court, Tower Hill, E.C. 43,936.
 "GINGER ALE," on shield label, with design showing a well and the word "Purity." Belfast Mineral Water Company (Lim.), Belfast. 51,516.
 "HUNTER'S CELEBRATED SALAD CREAM" on label, with drawing of salad, bowl and autograph. B. W. Hunter, "Bull and Mouth," Leeds. 51,756.
 Picture of Civet Cat on label; for perfumery, &c. Bayley & Co., 17 Cockspur Street, London. 51,803.
 "MILKOLINE," with picture of cow, &c.; for a lubricating compound A. Haacke & Co., 114 Feuchurch Street, E.C. 51,887.
 "HOLDEN'S DISLIXUM SOAP," on label showing sun, moon, and stars on a black background; for soap. J. Holden, 8 Dantzic Street, Manchester. 51,949.
 Two fancy labels, with arms (dove and words "Pacis Nuncia"); for Sir James Murray's fluid magnesia. Sir James Murray & Son, Graham's Court, Temple Street, Dublin. 52,232-3.
 "HEMORRHOIDAL PASTULES FOR PILES," with monogram "H. P." W. Neats, 2 Railway Approach, London Bridge. 52,310.
 Bird carrying scroll with words "Stanley's Golden Cure"; for a lotion for human application. W. C. Hawtin (trading as Stauley & Co.), 99 Inville Road, Walworth, S.E. 52,385.
 "TRITICUMINA;" for wheaten biscuits, &c. A. Meaby, Queen's Road, Reading. 52,389.
 Goldbeater's mallet, with words "Good as Gold"; for dry and perfumed soap. Jesse Asceough, Handsworth, Birmingham. 52,421-2.
 "T. W. S." in floral triangle; for aerated beverages. Thranes, Williams, & Sharpe, 47 Goodhead Street, Nottingham. 52,664.
 "LAGA;" for a medicine. British Patent Medicine Company, Queen's Arcade, Glasgow. 52,790.
 "ANAKESIS FOR PILES," with other words on label; for a medicine. P. Neustädter & Co., New York. 52,857.
 "THE LITTLE WARBLER BUTFON HOOK," and "Dudmahoy's Curious Essence"; for perfumes. W. A. Wilson, 89 Lamb's Conduit Street, London, W.C. 53,185-7.
 "SALPHOZONE," on picture of sea-coast; for saline and medicated salts. Henry Spring, Brigg, Lincolnshire. 53,202.
 "LEMONETTE," on box of lemons; for non-alcoholic and non-aerated beverages, &c. H. Spring, Brigg. 53,211.
 "ENDERMA (GOOD FOR THE SKIN)," with other words on label; for scented soap. R. Hendire & Co., 12 & 13 Tichborne Street, London, W. 53,279.
 Picture of white hand on black ground; for a plaster. Perry & Norwood (also trading as the National Plaster Company), 127 Pomeroy Street, Peckham. 53,324.
 Picture of girl in bed; for chemical substances prepared for use in medicine and pharmacy, including medicated articles and appliances. R. M. Munroe, 112 Southampton Row, W.C. 53,334.
 Picture of pillar on pedestal; for aerated waters. Charles Ashby & Co., Staines, Middlesex. 53,366.
 "ANTI-CORYZALINE;" for a medicine for cold in the head, &c. O. C. Michie, 175 Kentish Town Road, N.W. 53,447.
 Picture of drinking fountain; for aerated waters. R. G. Harding (trading as Rahmsford & Co.), 8 Chnrch Street, Kingston-on-Thames. 53,531.
 "HONITON AERATED WATER WORKS," with facsimile signature; for aerated waters. J. J. Cuddon, Honiton. 53,548.
 "TONGA;" for medicine. Allen & Hanburys, Plough Court, Lombard Street. 54,025.
 Monogram "J.W." in diamond; for aerated waters. Joseph Wilkinson Back Askin Road, Gateshead. 54,472.

Trade Report.

It should always be remembered that prices quoted in this section are as nearly as can be ascertained the lowest that are actually paid for bulk quantities. Considerable allowances have to be added in many cases before ordinary prices can be ascertained, and for many drugs it must be recollected the range of quality is very wide.

MINCING LANE, August 13.

CINCHONA BARK.—The usual public sales took place on Tuesday, and passed off quietly, the values obtained showing no further reduction in price, greatly to the relief of holders of quinine. The supplies were of a very restricted character, totalling 1,927 packages, a good proportion of which did not practically count, as it consisted of South American bark, for which there is little or no demand. Of this bark only 58 bales fresh *New Granada* were sold at 3½*d.* to 4½*d.*, and 69 bales good bright *Maracaibo* at 1¼*d.* to 3*d.* per lb. A comparatively large supply of *Java* bark (174 packages) sold at a slight reduction, viz. *Ledgeriana*—branch, 3*d.* to 4½*d.*; chips mixed with branch, 6½*d.* to 1*s.*, rather quilly to very good bold chips, 5*d.* to 1*s.* 2*d.*; root, 9½*d.* to 1*s.* 2*d.*, renewed root, 11½*d.* to 1*s.* 4*d.* *Officinalis*—chips, 3*d.* to 1*s.*, root, 1*s.* 4*d.*, renewed, 1*s.* per lb. 20 bales Crown bark from the Neilgherry Hills sold at 11*d.* per lb. for fine dry strong renewed spoke shavings.

From Ceylon only 930 packages were catalogued—less than has been offered for many months. 650 of these were sold at unchanged rates, the following being the prices realised:—*Succirubra*—branch at 2½*d.*; chips mixed with branch 4*d.* to 6*d.*, chips small to bright, 3½*d.* to 7*d.*; spoke shavings, 4½*d.* to 6*d.*; root, 3*d.* to 6½*d.*; quill, very broken and dusty, 6*d.*, renewed, rather low and woody to very fine, 6*d.* to 1*s.* 2*d.* *Officinalis*—branch, 4*d.* to 5*d.*; chips mixed with branch, 4½*d.* to 5½*d.*, chips, 4½*d.* to 9*d.*; spoke shavings, 5*d.*; root, common to very fine strong, 7*d.* to 1*s.* 6*d.*; renewed, woody to fine, 8½*d.* to 1*s.* 3*d.*; the unit remains at about 3½*d.*

The following is the official range of prices of cinchona as compared with last year:—

	1886			1885		
	s.	d.	s.	d.	s.	d.
South American (per lb.)—						
Calisaya, flat	1	0	2	6	1	2
" quill	1	2	3	6	1	4
Carthagena, fair to fine	—	—	—	—	—	—
" ordinary to mid.	—	—	—	—	—	—
Columbian, good to fine	—	—	—	—	—	—
" ordinary to fair	—	—	—	—	—	—
Crown, Loxa	0	5	1	10	0	6
Grey (Huanoco)	0	4	1	5	0	4
Maracaibo	0	2	0	5	0	3
New Granada	—	—	—	—	—	—
Pitayo, hard	0	2	0	7	0	4
Red, flat	1	6	6	0	2	6
" quill	1	0	3	0	1	4
Cnprea	0	2	0	10	0	4
East India and Ceylon (per lb.)—						
Crown—						
Twigs and branch	0	2½	0	6	0	3
Chips and spoke shavings	0	5	1	0	0	4
Root	0	8	1	5	0	5
Quill, ordinary to fine	—	—	—	—	0	7
Renewed	0	9	1	9	0	10
Red—						
Twigs and branch	0	1	0	4	0	1½
Chips	0	3	0	9	0	4
Spoke shavings	0	4	0	9	0	5
Root	0	3	0	6	0	3
Quill, good to fine	0	10	2	3	1	0
" ordinary to fair	0	6	0	9	0	6
Renewed sorts	0	4	1	4	0	6
Calisaya	0	2	1	9	0	2
Hybrid	0	2	2	0	0	2
Ledgeriana	0	2	2	3	0	2

The following statistics give an interesting review of the movements in Ceylon bark during the last few years:—

				Branch and Trunk
Total shipments from Ceylon, Oct. 1, 1885, to July 1, 1886 ..	1884	1885	1886	12,338,599 lbs.
" " " 1884 ..	1885	1886	1887	8,390,317 "
" " " 1883 ..	1884	1885	1886	6,998,014 "
" " " 1882 ..	1883	1884	1885	4,884,507 "

Statement of the landings, deliveries, and stocks of "medicinal bark" in London for the first seven months of the last three years:—

	1886	1885	1884
Landed pkgs.	43,497	31,223	35,562
Delivered "	36,379	36,147	46,383
Stock July 31 "	68,345	75,552	89,946

Statement of the movements of cinchona bark in the United Kingdom, according to the Board of Trade Returns, for the first six months of the last three years:

	1886	1885	1884
Imports cwt.	54,972	56,476	44,542
Exports "	56,123	49,330	41,915
Left for home use "	—	6,641	2,627

Declared value of imports £441,056 £407,381 £419,217

The auctions to be held at Amsterdam on August 20 comprise about 1,400 packages Java bark.

ACID (BORACIC) has been reduced in price recently, owing to the war between English and German manufacturers, to which reference is made on another page.

ACID (CITRIC).—The unfavourable weather is put down as the principal cause of the check in the advancing tendency of the market. On the spot 2*s.* 3*d.* per lb. is quoted, and for forward delivery the same figure, or perhaps ¼*d.* more. There is no doubt, however, that the article has every appearance of being in a thoroughly sound position. Mr. D. Magnus, of 3 Cross Lane, E.C., states that during the first seven months of this year the citric acid manufacturers have received about 700 pipes lemon juice, or upon the average more than 2,000 pipes less than during the same period for three years (1883-85), and observes:

"Considering that it takes about three months to make citric acid, and that from the moment the makers go in for lemon juice the present stock of citric acid would still have to last for three months' consumption, and bearing in mind also that the makers have shown no intention to buy lemon juice at the present prices, and to make citric acid at a loss of, say, 3*d.* to 4*d.* per lb., the conclusion must be arrived at that the effort to bring down the market is the work of interested parties. There seems no reason for doubting that the citric acid position is of itself getting stronger from month to month."

ACID (TARTARIC) is without business, at nominally unchanged rates.

ANTIMONY remains neglected, the arrivals from Japan continuing far in excess of the demand.

GLYCERINE is very firm, and quoted at 50*l.* per ton for pure S.G. 1,260.

HEAVY CHEMICALS.—The following is the position of some leading articles:—*Borax* is firm at 23*l.* 15*s.* to 29*l.* for English, and 26*l.* 10*s.* for foreign. *Bleaching Powder* continues to be quoted at 7*l.* ex warehouse. *Cream of Tartar*.—Firsts on the spot rule at 124*l.* ex warehouse. *Chlorate of Potash* for prompt delivery is held at 6½*d.* *Bichromate of Potash* neglected; present value 3½*d.* *Soda*.—Ash, 1½*d.* landed; Crystals, 2*l.* 6*s.* 6*d.* ex ship here and 2*l.* 0*s.* 6*d.* Tyne. *Bichromate* is steady at 7*l.* 5*s.* to 7*l.* 10*s.* ex warehouse. *Caustic*.—Cream 8*l.*, white 60 per cent. 8*l.* 5*s.* *Nitrate*.—On the spot quoted at 9*l.* 5*s.* to 9*l.* 15*s.* according to quality. *Saltpetre* has experienced a further reduction, spot Bengal, ref. five lbs. per cwt., being now quoted so low as 15*s.* 9*d.* per cwt.

MORPHIA SALTS (*Acetate*, *Hydrochlorate*, and *Sulphate*) continue to be quoted at low rates, in sympathy with the cheap price of opium.

QUICKSILVER.—The price remains unchanged, but the tone of the market is extremely firm.

SULPHATE OF AMMONIA.—Rather firmer. Actual quotation for grey 24 per cent., 11*l.* 5*s.* to 11*l.* 7*s.* 6*d.* in London, and 11*l.* 5*s.* in Hull.

SULPHATE OF COPPER has again receded, and is now quoted at 14l., the market having assumed a quiet tone.

SULPHATE OF QUININE remains in a depressed condition, and a second-hand transaction of German make in bulk at an extremely low price is reported. Makers, however, are somewhat firmer in tone since this week's bark sales, and 2s. 1d. is the price generally quoted for German. Howards' unchanged. Pelletier's, 2s. 6d. in 1-oz. bottles. The stock of quinine of different brands now on hand must be a very large one.

ARRAROEBA.—Some fresh arrivals are held at 4s. to 4s. 3d. per lb.

CAMPHOR firm. Crude *Japanese* has been sold at 70s. per cwt. For *English refined* the demand has been very strong of late.

CANTHARIDES.—On the Continent there has been a brisk business going on in this article during the last fortnight, and reports from all sides agree that an advance will shortly have to be paid. The annual fair at Pultawa, in Russia, which is the principal commercial centre for this article, has just been held, and dearer rates were quoted all round. It is stated on good authority that the crop this season does not exceed one-half of that of 1885. The arrivals of new crop are being readily bought up. Old crop, sifted and in good condition, is quoted at 8s. per lb.; first quality new crop, for delivery end of August, at 8s. 6d. per lb.

CHAMOMILE FLOWERS.—We hear from Central Germany that the collection of Roman chamomiles is now in full progress, and it is thought that the price for large white double flowers, which is now 80s. per cwt., will shortly be reduced to 70s. per cwt. The common variety is in good demand, but the gathering has been rendered difficult by the rainy weather prevailing.

ERGOT OF RYE.—No reliable accounts concerning this year's ergot can yet be obtained, but the usual reports of a short crop are again current.

JAPAN MOSS.—The two bales which were offered under this name in auction last week and found no purchaser are the seaweed from which the Japanese isinglass (*Agar-Agar*) is manufactured. The specimen under notice appears to belong to the *Gigartina* sp., a plant belonging to the N.O. Florideae, of which the Agar-Agar known to commerce is the dried root and leaf. But Agar-Agar is also imported which is made from the dried gelatine of *Gelidium corneum* and other algae, and is said to consist principally of pararabin. The moss referred to is quite a new article on our market. It would form an excellent substitute for Irish moss.

JUNIPER BERRIES.—In passing through a broker's show-room last week we noticed a sample of brownish-red berries, imported from Bassorah, on the Persian Gulf. These seeds are derived from the *Juniperus Phoenicea*, L., a variety so called because of its red berries, which occurs along the northern coast of Africa (being known as Tooga or Tagga in Morocco), and in Asia Minor. The flowers of the female plant consist of three whorls of imbricated bracts, which, when the flowers have faded, grow together to form a berry-like fruit termed a *galbulus*, which encloses three seeds. The sutures of the fruit scales form a mark at the summit of the fruit, the base of which is indicated by a small point surrounded by minute bracts. The cones are rather larger than the common juniper berries, and their colour brighter. They have a pronounced sweetish taste.

LEAVES.—There is a good demand for *Belladonna*, but the crop has been very meagre, and on the Continent also there is a great scarcity of supplies. English *Henbane* leaves are scarce and dear, and holders ask higher rates.

CASTOR OIL.—At Liverpool sales have been made of good seconds at 2½d. to 2¾d. per lb. There is less disposition shown to sell arrived parcels, and business is consequently checked.

OILS (ESSENTIAL).—In *Citronella* no improvement can be reported. We quote native at ¾d., and Fisher's at 1½d. per oz. *Caraway* is rather cheaper, while, on the other hand, *Dill* is quoted at higher prices. *Eucalyptus* is also stated to be in good demand, and holders have consequently been able to

increase their quotations. It is admitted on all hands that the crop of English *Lavender* will be a small one this season, the plants having suffered severely through frost. The quality of the French crop of *Neroli* is stated to be greatly below average, and the holders in the South of France have commenced to increase their pretensions. Respecting *Otto of Roses*, Mr. R. C. Treatt writes us that the price has gone up 2s. per oz. on this side, and that the small growers in Bulgaria are asking very high prices for their this season's production; so high, in fact, that shippers do not care to buy at present, but prefer to hold on for a time to see whether the growers will reduce their demands.

The largest cultivators of roses in Bulgaria are offering their otto at 23s. 6d. per oz. free in London, but very little has been done in this article during the past month. It is said that the Bulgarian crop is fully 25 per cent. below average.

OPIMUM.—As is usual at this season, the most contradictory reports are being circulated with respect to the result of the crop and the prospects of the article. Under these circumstances it would seem advisable to await the middle of next month before engaging in any operations. By that time the market will have assumed a definite shape, and the truth of the rumours now current may then be gauged. Meanwhile the article remains extremely neglected, although the inquiries have been somewhat more numerous lately. The first parcels of the new crop arrived a few days ago, and upon inspection proved to consist of *Guéré*, of very good but not particularly well selected quality, and worth, at the present rates, about 8s. 6d. per lb. *Salonica* is quoted at 11s. 6d. to 12s. per lb. A correspondent writing from Teheran states that Persia annually exports about 8,000 boxes of opium, of a value of about 650,000l. The best quality Ispahan opium contains 10 to 11 per cent. and the second quality 7 to 9 per cent. of morphine. The purest is sent to England, and that which is exported for the China market is mixed with about 10 per cent. weight of oil, but, owing to the adulteration with sugar, starch, grape-syrup, &c., the demand for Persian opium, which was formerly thought the best, has somewhat decreased. Opium is mostly cultivated at Ispahan, Yezd, Mahan, Shiraz, Shuster, Kermanshah, and Khorassan. In this latter province the production has increased tenfold in the past ten years, and now reaches 2,000 boxes a year.

QUINCE SEEDS.—Hamburg reports state that 20 cwt. fine quality, recently imported there from Cape Town, have been promptly bought up by an American house.

VANILLA.—About 4 cwt. good black beans recently arrived at Hamburg from Tahiti, in Australasia. They are still unsold, and held at about 14s. per lb. This variety is particularly adapted for perfumery.

WAX.—A small parcel *Carnauba* has been sold without reserve at 38s. In *Japan* wax little is doing, the price still remaining 57s. per cwt. for good hard white squares. Privately small sales have been made at this figure.

COROSOS NUTS.—A supply of about 1,000 bags has been placed in auction on 10th inst., but only 200 of these found purchasers at the rate of 20l. to 20½s. per ton.

SEEDLAC.—Twenty-three packages *Kurrachee* have been sold at 25s. 6d. to 28s. in auction.

CUTCH.—Quiet. In auction on Wednesday 4,000 packages were all withdrawn or bought in, except 498 boxes, which sold without reserve; M.M. slabs at 26s. 9d., a cheap price; and Y.T.C. soft 19s. 9d. to 20s.

GAMBIER is dearer, and the market is in an active condition. *Black* has now reached the price of 23s. 6d. for spot, 23s. for landing, 22s. 3d. for arrival June-July, and 21s. 9d. per August-September. The latest Singapore advices state that moderate supplies from the interior were expected there in July and an increase in August. *Cubes* were stated to be rather dearer.

SHELLAC.—At auction 831 chests went off flatly, and only 90 chests were disposed of at irregular rates. *First Orange* sold, DC reddish, at 63s. *Second Orange*, D double-triangle good, 46s.; T triangle fair, 45s. *Garnet*, AT free, 47s. *Button*, CA house 1, second blood, 52s.; ditto, 2, fine third, 45s.; PB, 2, good third, 44s.; RBBL, 4, dark, 40s.

TURMERIC very depressed. At auction 1,390 bags *Madras* went off quietly, but being freely offered, 850 bags were disposed of at lower prices; bulbs, 9s. to 9s. 9d.; common rough finger, 10s. 6d. to 10s. 9d.; large dull ditto, 11s. 3d. to 11s. 6d.; bright yellow ditto, 11s. 9d. to 12s. Of 157 bags *Cochin* 74 bags sold; mouldy split bulbs, 7s. 3d.; ends, 5s. 6d.

COCOANUT OIL.—Although no large transactions can be reported, prices are extremely firm, and even higher for some varieties, such as *Cochin* in hogsheads, which is 20s. dearer owing to increasing scarcity. The present quotations are for *Cochin* in pipes 32l. 10s. to 33l. in hogsheads 34l. *Ceylon* oil in pipes and puncheons 25l. 15s., in hogsheads 26l. to 26l. 5s. *Mauritius* oil held at 25l. 10s. On the 2nd of this month 1,390 tons net were afloat from *Cochin* and *Ceylon*, against 2,345 net in 1885, 3,121 net in 1884, and 5,467 in 1883. The arrivals of all varieties from January 1 to July 31 have been 2,155 tons, and the deliveries 2,406 tons net. Our stock is smaller than it has been for many years, having receded from 8,928 tons in 1881 to 8,869 in 1882, 3,968 in 1883, 2,526 in 1884, 2,030 in 1885, and 1,268 on August 1, 1886. The article is therefore, statistically, in a thoroughly sound position.

COTTONSEED OIL has attracted a good deal of attention lately, and the advance has been well sustained. Since our last report the price for *Crude* has again increased from 5s. to 10s., and there are now buyers at 17l. for this variety. *Refined* oil has made an advance of from 20s. to 30s., being quoted at 19l. to 20l. according to make and packages. The Liverpool market is very firm, *Liverpool refined* being quoted at 19s. 6d. to 20s., whilst sales of *American refined* have been made to a considerable extent at 19s. 3d. to 19s. 6d. per cwt., and more money is now asked.

OLIVE OIL.—The market has remained extremely quiet. *Mogadore* variety being obtainable at 32l. There is nothing doing in any other descriptions. The Liverpool market is quiet at unchanged rates. From Persia we hear that about 5,000,000 kilog. of olives are annually gathered at Rudbar, near Resht, and they average about 3s. per cwt. The greater part of the oil is so badly prepared that it is only good for making into soap, for which purpose it is mostly used. A Frenchman has lately succeeded in so well refining a small quantity of this oil, that for table purposes it can hold its own with any produced in France.

PALM OIL remains neglected, at 23l. for fine Lagos. In Liverpool the article is more steady, and there is but little offering. The imports of palm oil during the first half-year amounted to 22,409 tons in 1886, 20,120 tons in 1885, and 8,669 tons in 1884. The exports during the same period were 9,369, 11,049, and 7,840 tons respectively.

PETROLEUM OIL.—There has been a firmer market, but the closing tone is again quiet. American, on the spot, 5½d. to 5¾d.; September-December, 5½d.; January-March, 5½d. Russian, spot, 5d. to 6d., according to quality; November-December, 5½d.; January-March, 5½d. to 6d.

The deliveries of petroleum oil from January 1 to August 5 have been 327,087 barrels, against 307,690 barrels last year. The stocks on August 5 amounted to 166,553 barrels, against 1,131 barrels the year before.

ROSIN remains very firm. There is a moderate business passing at 3s. 6d. for common, 4s. to 6s. for medium, and at 8s. to 10s. per cwt. for fine.

TURPENTINE is firmer than when we wrote last. *American spirit* is now held at 26s. on the spot, and 26s. per September-December. The latter price, however, buyers are not yet willing to concede. They offer 25s. 6d., but holders are firm. The stock of American spirit on August 2nd was 13,088 barrels, against 22,228 barrels in 1885.

CANARY SEED.—In auction 500 bags *Spanish* sold at 43s. 6d. 44s., also 75 bags *Turkish* at 42s. per quarter.

CASSIA LIGNEA is again cheaper. A holder has sold 200 boxes in auction "without reserve" at 23s. 6d. per cwt. A glance at the statistical position of the article shows that no genuine improvement can be reasonably expected for some time. Present stock, 126,881 cases. Stock in 1885, 100,700

cases. Landed in 31 weeks of 1886, 48,009 cases; in 1885, 43,98 cases. Delivered during the same period: in 1886, 17,525 cases; in 1885, 18,085 cases.

CHILLIES.—Good to fine bright Zanzibar are worth 31s. to 32s., at which figure about 180 bales have been sold.

CLOVES are slowly declining in value, although the demand at Wednesday's auctions showed some signs of recovery. It is said that the principal holders of the article are very sanguine as to its prospects, as it is thought that Spain will soon commence to buy, and that the autumn orders from that quarter will be larger than usual. Meanwhile the nearest values for Zanzibar cloves are, good bright 9½d. to 9¾d.; fair, 9¾d. to 9½d.; middling dull and slightly mixed, 8½d. to 9d.; low dark, 7½d. to 8d. Of 62 bags *Ambonina*, 40 bags good fair to good sold at 9½d. to 9¾d.

CORIANDER SEED.—125 bags ordinary dull *Caleutta* bought in at 11s.

GINGER.—About 1,450 packages *Cochin* were offered for sale on Wednesday and disposed of at varying prices, viz.:—*Bengal* ginger is firm, with sales at 15s., and *Japan*, good flake, is worth the same price. Of 564 barrels *Jamaica* about 350 barrels sold at about previous rates, small and low medium washed, 40s. to 42s.; medium to good medium bright, 43s. to 50s.; good bright and bold, 56s. to 63s. Our stocks of *West Indian* ginger are accumulating, the imports during the year being greatly in excess of the deliveries. Of *Bengal* the stock is fairly large, viz., 3,181 bags; but the deliveries for the year are 2,813 bags against only 1,403 bags imported. *African* ginger is plentiful.

MACE is also extremely firm, and worth 1s. 11d. per lb. for good *West India*. The statistical position is as follows:—Stock, 594 packages, against 676 in 1885. Imports, 848 packages, against 653 in 1885. Deliveries, 612 packages, against 496 in 1885. Singapore advices state that mace is scarce there, and much inquired for.

PEPPER is dearer for the *Black* variety, and the market is very firm. In auction on Wednesday 20 bags dull Singapore, offered without reserve, realised 8d. per lb. Fair quality has been sold privately at 8½d. Of *White* pepper nothing was sold in public sale, 40 bags Singapore being bought in at 1s. 1½d. nominally, and 6 bags Penang at 1s. per lb. The statistical position of both varieties is very favourable. Our stock is now 1,087 tons black and 336 tons white, against 2,115 and 416 tons last year. The arrivals up to the beginning of this week were 2,424 tons black and 497 white (against 3,995 and 722 tons last year); the deliveries, 3,892 black and 800 white (against 4,214 and 1,073 tons last year). Advices from Singapore, dated July 15, state that there has been a temporary break in the supplies of black pepper, and that it is believed that the bulk will be on the market by the middle of August. As regards white, the reports speak favourably of the extent of the new crop.

THE AMERICAN MARKETS.

CABLEGRAM.

NEW YORK, August 12.

SARSAPARILLA.—The arrivals of *Mexican* root of the Vera Cruz variety have been very large during the past few days. The demand for this root is, however, entirely dormant, and it is therefore expected that owners will have to reduce their price, which at present is nominally 5½d. per lb.

TONQUIN BEANS.—Frosted *Angostura* beans are offered plentifully, greatly in excess of the requirements of the market, in fact. Good beans of the new crop were nominally held at 7s. per lb. a few days ago, but since then there has been a serious decline, which threatens to assume still larger proportions.

SULPHATE OF QUININE.—The downward tendency of the market has received a check, and the demand for consumption continues active.

OIL OF PEPPERMINT.—Although nominally the market is unchanged, a very firm tone prevails among holders, and purchases would only be practicable at an advance in price.

Prices Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

		July 30		August 13	
ACIDS—		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½	0 0	0 2½	0 0
pure	"	0 5½	0 9	0 5½	0 9
glacial, 50 p.c.	"	0 5½	0 8	0 5½	0 8
Benzoic	per oz.	2 6	0 0	2 6	0 0
Ex Gum	"	0 6	0 0	0 6	0 0
Citric	"	2 3½	0 0	2 3	2 3½
Galic	"	3 1	0 0	3 3	0 0
Hydrochloric	per cwt.	4 6	7 6	4 6	7 6
Nitric	per lb.	0 3½	0 3½	0 3	0 3½
Oxalic	"	0 3½	0 4	0 3½	0 4
Sulphuric	"	0 0½	0 0	0 0½	0 0
Salicylic	"	6 9	9 6	6 9	9 6
Tannic	"	1 3	1 6	1 3	1 6
Tartaric, English	"	1 8	0 0	1 7½	0 0
foreign	"	1 7½	1 7½	1 7½	0 0
ANTIMONY, crude	per cwt.	17 0	17 3	17 0	17 3
star	"	34 0	35 0	34 0	35 0
ARSENIC, lump	"	21 0	22 0	21 0	22 0
powder	"	8 6	9 0	9 0	9 3
BRIMSTONE, rough	"	8 0	8 6	8 0	8 6
roll	"	8 0	8 6	7 0	8 6
flowers	"	9 6	10 0	9 6	10 0
CHLOROFORM, B.P.	per lb.	0 0	0 0	4 0	0 0
methylated	"	0 0	0 0	1 7	0 0
GLYCERINE, pure S.G.					
1260	per cwt.	45 0	47 0	48 0	50 0
crude brown	"	17 0	27 0	18 0	28 0
iodoform	per lb.	16 0	20 0	16 0	20 0
iodine, dry	per oz.	0 9	0 11	0 9	0 11
resublimed	per lb.	13 6	0 0	13 6	0 0
MAGNESIA, calcined	"	1 3	0 0	1 3	1 4
citrate	"	0 11	1 3	1 1	1 3
MERCURY	per bot.	138 0	140 0	139 0	140 0
PRECIPITATE, red	per lb.	2 11	0 0	3 0	0 0
white	"	2 11	0 0	2 10	0 0
PRUSSIAN BLUE	"	1 8	2 0	1 8	2 0
SANTONINE	"	8 0	0 0	7 9	0 0
SALICINE	"	5 6	0 0	5 3	0 0
SALOL	"	15 3	0 0	15 3	0 0
URETHANE	per oz.	0 0	1 6	0 0	1 6
SALTS—					
Alum	per ton	97 6	110 0	103 0	110 0
powder	"	115 0	122 6	120 0	122 6
Ammonia:					
Carbonate	per lb.	0 4	0 6	0 5	0 0
Muriate, crude,					
white	per ton	360 0	550 0	350 0	550 0
Sulphate	"	227 6	0 0	223 9	240 0
Argol, Cape	per cwt.	96 0	107 0	96 0	107 0
Red	"	87 0	95 0	87 0	95 0
Oporto, red	"	0 0	0 0	0 0	0 0
Bleaching powder	"	6 6	7 0	6 6	7 0
Borax, British refined ..	per lb.	30 0	31 0	27 0	29 0
Calomel	"	2 7	0 0	2 9	0 0
Chloral hydrate	"	4 5	4 7	4 5	4 7
Liebreich's	"	5 8	7 0	5 8	7 0
Cocaine Muriate	per grm.	1 3½	1 10½	1 2½	1 6
Codine	per oz.	25 0	27 0	22 0	0 0
Copper:					
Sulphate	per cwt.	14 0	14 6	14 0	0 0
Copperas, green	per ton	37 6	42 6	40 0	45 0
Corrosive Sublimate ..	per lb.	2 0	2 1	2 2	0 0
Cream Tartar, French ..	per cwt.	124 0	0 0	124 6	124 10
brown	"	109 0	0 0	109 0	0 0
Epsom Salts	"	3 6	4 0	3 6	4 0
Glauber Salts	"	3 6	4 6	3 6	4 6
Magnesia: Carbonate ..	"	39 0	40 0	39 0	40 0
Fond	"	72 0	0 0	72 0	0 0
Morphine Salts	"	4 3	0 0	3 6	0 0
Phosphorus	per lb.	2 3	2 4	2 3	2 4
Potash: Bichromate ..	per lb.	0 3½	0 0	0 3½	0 0
Carbonate:					
Potashes, Can., 1st	per cwt.	19 6	21 6	21 0	22 6
Pearlshes, do.	"	39 0	41 0	39 0	41 0
Chlorate	per lb.	0 6½	0 0	0 6½	0 6½
Prussiate, yellow ..	"	0 7½	0 0	0 7½	0 8
Sulphate	per cwt.	10 6	0 0	10 6	0 0
Potassium:					
Bromide	per lb.	1 6½	1 10	1 6	0 0
Chloride	per cwt.	9 0	0 0	9 0	0 0
Iodide	per lb.	11 6	12 6	11 0	11 6
Quinine:					
Sulphate, Brit., in bot.	per oz.	2 10	3 0	2 8	0 0
Sulphate, French	"	2 9	0 0	2 6	0 0
Sulphate, German, bulk	"	2 0	2 2	1 11½	2 1
Sal Acetos	per lb.	0 6	0 6½	0 6	0 6½
Sal Ammoniac, British ..	per cwt.	34 0	36 0	34 0	36 0
Saltpetre:					
Bengal, 5½ p.c. or under	"	15 9	16 0	15 9	16 0
Bengal, over 6 per cent.	"	0 0	0 0	0 0	0 0

Saltpetre:—(cont.)

British, refined	per owt.	21 0 to 21 6	21 0 to 21 6
Soda: Bicarbonate	"	7 0	7 6
Hwds.	"	45 0	0 0
Ash	per deg.	0 1½	0 1½
Crystals	per cwt.	42 0	53 0
Caustic	"	6 10½	8 3
Hyposulphite	"	6 9	8 6
Nitrate	"	10 0	11 0
Zinc Sulphate	"	8 6	12 9
SUGAR OF LEAD, White ..	"	22 0	25 6
Brown	"	18 0	18 6
VERDIGRIS	per cwt.	42 0	87 0
VERMILION, English	per lb.	2 2	2 3
China	"	2 0	2 1

DRUGS.

ALOES, Hepatic	per owt.	60 0	140 0	60 0	140 0
Socotrine	"	80 0	185 0	80 0	185 0
Cape, good to fine ..	"	27 0	30 6	27 6	30 0
" infir. to fair	"	9 0	24 0	10 0	24 0
Barbados	"	0 0	0 0	0 0	0 0
Curaçao	"	40 0	120 0	25 0	120 0
AMBERGRIS	per oz.	40 0	120 0	40 0	120 0
BALSAM—					
Canada	per lb.	1 5	1 7	1 5	1 7
Capivi	"	1 2	1 5	1 2	1 5
Peru	"	5 3	5 5	5 3	5 6
Tolu	"	1 1	1 3	1 1	1 3
BARKS—					
Canella alba	per cwt.	32 6	35 0	25 0	35 0
Casearilla	"	25 0	28 0	24 0	33 0
CINCHONA—					
Calisaya, flat	per lb.	1 3	2 8	1 0	2 6
" quill	"	1 0	3 6	1 2	3 6
Columbian, good to fine	"	1 1	1 9	1 1	1 9
" ord. to fair	"	0 3	1 0	0 2½	1 0
Crown, Loxa	"	0 5	1 10	0 5	1 10
Grey (Huancabo)	"	0 4	1 5	0 4	1 5
Maracaibo	"	0 3	0 6	0 2	0 5
Pitayo, hard	"	0 3	0 10	0 2	0 7
Red, flat	"	2 0	10 0	1 6	6 0
" quill	"	1 0	3 6	1 0	3 0
Cuprea	"	0 2	1 9	0 2	0 10
East India and Ceylon,					
crown	"	0 1	1 2	0 2½	1 9
Do., red	"	0 1½	3 6	0 1	2 3
BUCHU LEAVES	"	0 2	0 9	0 2	0 9
CAMPHOR, China	per cwt.	65 0	0 0	66 0	67 0
Japan	"	68 0	0 0	67 6	70 0
Refin. Eng.	per lb.	1 0	0 0	1 1	1 2
Tablets	"	0 10	0 11½	0 11	1 0½
CANTHARIDES, China ..	"	4 6	4 9	4 6	4 9
Russian	"	8 0	9 0	8 0	8 6
CASTOREUM	"	25 0	38 0	25 0	38 0
CHAMOMILE FLOWERS ..	per cwt.	42 0	0 0	42 0	0 0
CHIRETTA	per lb.	0 21	0 2½	0 17	0 2½
COCA LEAVES	"	0 10	1 5	0 10	1 5
DRAGON'S BLOOD	per cwt.	60 0	230 0	60 0	230 0
ERGOT OF RYE	per lb.	0 9½	1 4	0 8½	1 4
FRUITS & SEEDS (see also Seeds and Spices)					
Anise, China Star	per cwt.	72 6	0 0	72 6	0 0
Russian	"	27 0	30 0	29 0	30 0
Beans, Tonquin	per lb.	1 2	5 0	1 3	5 0
Cardamoms, Malabar,					
good	"	2 3	3 0	2 1	3 0
inferior	"	1 0	2 0	1 0	1 10
Aleppy	"	0 6	2 6	0 6	2 3
Madras	"	0 8	1 9	0 8	1 7
Ceylon, long	"	0 8	1 2	0 8	1 2
Malabar sorts	"	0 9	2 9	0 9	2 1
Cocculus Indicus	per cwt.	8 6	10 0	8 6	10 0
Colocyth	per lb.	0 9	2 0	0 11	2 0
Cubeb	per cwt.	280 0	350 0	280 0	350 0
Cummin	"	23 0	40 0	23 0	40 0
Fenugreek	"	5 6	6 6	5 6	6 6
Juniper Berries	"	0 0	0 0	10 6	14 0
Nux Vomica	"	7 0	11 0	7 0	11 0
Tamarinds, E. India ..	"	9 0	11 0	9 0	11 0
W. India	"	8 0	13 6	8 0	13 6
Vanilla, large	per lb.	13 0	20 0	13 0	20 0
inferior	"	6 0	12 0	6 0	12 0
FLOWERS—Dalmatian ..	"	60 0	90 0	60 0	90 0
Caucasian	"	95 0	0 0	95 0	0 0
HONEY, California	per cwt.	19 0	30 0	20 0	30 0
Jamaica	"	22 0	32 0	20 0	32 6
IPECACUANHA	per lb.	2 9	4 8	2 11	4 0
ISINGLASS, Brazil	"	2 1	4 8	2 1	4 3
Tongue sort	"	1 7	3 1	1 8	3 4
East India	"	1 2	3 6	0 1½	4 4
West India	"	2 1	3 1	1 10	3 1
Russ. leaf	"	8 0	11 0	8 0	11 0
Simovia	"	0 0	2 4	0 0	2 4
JALAP, good	"	0 4½	0 6	0 5½	0 6
infer. and stems	"	0 3½	0 4	0 4½	0 5½
LEMON JUICE, f.o.b.	per pipe	730 0	800 0	620 0	650 0
Messina	per gall.	1 4	1 5	1 4	1 5
LIME JUICE, Jamaica ..	per cwt.	55 0	100 0	55 0	100 0
LIQUORICE, Spanish	"	12 0	20 0	12 0	20 0
LIQUORICE Root	per lb.	7 6	8 6	7 6	8 6
MANNA, flaky	"	62 0	65 0	61 0	74 6
MUSK, Tonquin pod	per oz.	35 0	90 6	35 0	90 6
Grain	"	25 0	40 6	25 0	40 6
Yunan pod	"	25 0	40 6	25 0	40 6
OILS (see also separate list)					
Almond, expressed ..	per lb.	1 3	0 0	1 3	0 0

		July 30				August 13						July 30				August 13			
Oils:—(cont.)		s.	d.	s.	d.	s.	d.	s.	d.			£	s.	£	s.	£	s.		
Castor, 1st pale.....	per lb.	0	3½	0	4	0	3½	0	4½			19	0	20	0	19	0		
Castor, second	"	0	3	0	3½	0	3	0	0			16	0	18	0	15	0		
Cod-liver	per gall.	3	0	4	6	2	10	0	4			51	0	52	0	51	0		
Essential Oils:																			
Almond	per lb.	13	0	27	0	22	0	27	0			25	0	26	0	25	0		
Anise-seed, star.....	"	6	2	6	3	6	2	6	3			20	0	0	18	0	19	0	
" German, &c.	"	10	0	11	6	10	0	11	6			16	0	17	0	16	0		
Bergamot	"	9	6	11	0	9	0	10	6			15	0	16	0	14	0		
Cajeput	per bot.	3	3	3	4	3	3	3	4			19	0	20	0	19	0		
Caraway	per lb.	3	4	10	0	3	4	10	0			40	0	0	40	0	0		
Cassia	"	2	8	3	2	2	9	3	2			0	0	0	0	0	0		
Cinnamon	per oz.	1	3	4	0	1	3	4	0			32	0	32	0	32	0		
Cinnamon-leaf	"	0	1½	0	2	0	2	0	0			38	0	39	0	38	0		
Citronelle	"	0	½	0	1½	0	½	0	1½			33	10	0	35	10	36	0	
Clove	per lb.	5	3	5	9	5	6	5	9			33	0	0	32	10	34	0	
Juniper	"	1	6	1	9	1	6	1	9			25	15	26	15	25	15		
Lavender, Exotic ..	"	5	10	7	6	5	10	7	6			24	0	0	23	0	23	10	
" Mitcham	"	40	0	53	0	40	0	53	0			21	15	22	0	22	5		
Lemon	"	9	3	11	0	7	6	10	0			22	5	22	10	22	0		
Lemongrass	per oz.	0	1½	0	1½	0	1½	0	1½			20	15	21	0	20	5		
Neroli	"	7	0	13	2	7	0	13	2			18	5	18	15	19	0		
Nutmeg	"	0	5	0	6½	0	5	0	6½			37	10	38	0	33	10		
Orange	per lb.	8	0	9	6	8	9	9	6			17	0	29	6	23	0		
Otto of Roses	per oz.	13	0	22	0	22	0	23	6			0	5½	0	5½	0	5½		
Patchouli	"	2	1	0	0	2	1	0	0			0	7½	0	7½	0	8½		
Peppermint: American	per lb.	12	0	12	6	12	0	12	6			24	6	25	6	25	3		
" (H. G. Hotchkiss) ..	"	16	0	16	6	15	0	0	0			0	5½	0	5½	0	5½		
" English	"	32	0	33	6	30	0	32	0			0	7½	0	7½	0	8½		
" (Jakson)	"	39	0	45	0	39	0	45	0										
" Japan	"	8	0	8	9	7	6	8	6										
" Menthol crystals ..	"	6	0	15	0	6	0	15	0										
Rosemary	"	1	4	2	11	1	4	2	11										
Sassafras	"	2	5	0	0	2	5	0	0										
Spearmint	"	12	0	14	0	12	0	14	0										
Thyme	"	1	6	4	6	1	6	4	6										
Mace, expressed	per oz.	0	2	0	0	0	2	0	0										
Opium, Druggists' kinds	per lb.	7	0	8	6	8	6	10	0										
QUASSIA (bitter wood)	per ton	80	0	95	0	80	0	95	0										
RHUBARB, China, good	per lb.	2	3	2	9	2	3	3	0										
" Middling to fair ..	"	0	9	1	3	0	8	1	3										
ROOTS—Calumba	per cwt.	35	0	60	0	25	0	50	0										
" China	"	25	0	28	0	25	0	28	0										
" Cus-Cus	"	21	0	23	0	21	0	23	0										
" Galangal	"	7	6	11	0	7	6	11	6										
" Gentian	"	17	0	18	0	17	0	18	0										
" Orris	"	45	0	50	0	45	0	50	0										
" Pellitory	"	44	0	0	0	44	0	0	0										
" Rhatany	per lb.	0	3	1	2	0	3	1	2										
" Seneca	"	1	11	2	1	2	0	2	2										
" Snake	"	3	3	3	5	3	3	3	5										
SAFFRON, Valencia	"	38	0	41	0	36	0	40	0										
Alicante	"	24	0	28	0	23	0	27	0										
SARSAPARILLA, Mexican	"	0	5	0	6	0	4½	0	6										
Guayaquil	"	0	7	0	11	0	7	0	10										
Honduras	"	1	2	1	5	1	2	1	5										
Jamaica	"	1	6	1	10	1	0	1	10										
SASSAFRAS	per cwt.	11	0	0	0	11	0	0	0										
SCAMMONY, Virgin	per lb.	21	0	28	0	18	0	26	0										
" second and ordinary ..	"	10	0	17	0	5	0	17	0										
SENA, Bombay	"	0	1½	0	3	0	1½	0	3										
" Tinnivelly	"	0	2	1	0	0	2	0	11										
" Alexandria	"	0	2	1	6	0	2	1	6										
SPERMACEETI, refined ..	"	2	0	0	0	1	11	2	0										
" American	"	1	11	1	11½	1	10	0	0										
SQUILLS	"	0	2½	0	3½	0	2½	0	3½										
GUMS.																			
AMMONIAC, drop	per cwt.	1	10	2	0	2	0	2	6										
ANIMI, fine washed	"	14	10	16	0	14	0	16	0										
" sorts	"	11	0	14	0	11	0	14	0										
ARABIC, pale picked	"	4	0	5	5	4	0	5	5										
" sorts, mid. to fine ..	"	1	0	3	15	1	0	3	15										
TURKEY, pick. gd. to fin.	"	12	0	17	0	12	0	17	0										
" second & inferior	"	8	10	11	10	8	10	11	10										
" sorts	"	8	0	8	15	8	0	8	15										
BENJAMIN, Siam, 1st	"	18	0	24	0	14	0	35	10										
" 2nd	"	3	5	12	0	3	5	12	0										
Sumatra, 3rd to 1st	"	25	6	26	0	23	6	26	0										
ASAFTETIDA, cm. to fair	"	5	6	8	0	5	6	8	0										
COPAL, Manila	"	16	0	80	0	16	0	80	0										
" Angola, red	"	145	0	152	6	145	0	152	6										
DAMMAR, pale	"	70	0	80	0	70	0	80	0										
EUPHORBUM	"	14	0	20	0	14	0	20	0										
GALBANUM	per lb.	0	3	1	5	0	3	1	5										
GAMBOGE	per cwt.	210	0	260	0	187	6	250	0										
GUAIACUM	per lb.	0	9	1	10	0	4	1	8										
KINO	per cwt.	20	0	45	0	30	0	45	0										
KOWRIE, sorts	"	30	0	107	6	49	0	107	6										
" selected	"	110	0	200	0	110	0	200	0										
MASTIC, picked	per lb.	2	6	3	1	2	6	3	1										
MYRRH, good and fine	per cwt.	97	6	150	0	100	0	157	6										
" ordinary to fair	"	70	0	95	0	70	0	95	0										
OLIBANUM, p. drop	"	45	0	50	0	45	0	50	0										
" amber and yellow ..	"	30	0	43	6	30	0	44	0										
SANDARAC	"	60	0	80	0	60	0	80	0										
SENEGAL	"	128	6	133	0	128	6	133	0										
SHELLAC, Orange	"	48	0	69	0	48	0	66	0										
" LIVER	"	43	6	47	6	43	0	47	0										
THUS	"	15	0	25	0	15	0	25	0										
TRAGACANTH, leaf	"	200	0	240	0	200	0	240	0										
" in sorts	"	40	0	195	0	40	0	195	0										
OILS.																			
" BAL pale	per tun	23	0	0	0	23	0	0	0										

Oils:—(cont.)		July 30		August 13				July 30		August 13	
		£	s.	£	s.			£	s.	£	s.
SEAL, yellow to tinged..	per tun	19	0	20	0			19	0	20	0
" brown	"	16	0	18	0			15	0	18	0
SPERM	"	51	0	52	0			51	0	52	0
COD	"	25	0	26	0			25	0	26	0
WHALE, South Sea, pale	"	20	0	0	18			20	0	19	0
" yellow	"	16	0	17	0			16	0	17	0
" brown	"	15	0	16	0			14	0	16	0
" Sardine	"	19	0	20	0			19	0	20	0
OLIVE, Seville	per ton	40	0	0	40			40	0	0	0
" Tunis	"	0	0	0	0			0	0	0	0
" Levant	"	0	0	0	0			0	0	0	0
" Mogador	"	32	0	32	10			32	0	32	5
" Spanish	"	38	0	39	0			38	0	39	0
" Sicily	"	33	10	0	0			35	10	36	0
COCOANUT, Cochinchina ..	"	33	0	0	0			32	10	34	0
" Ceylon	"	25	15	26	10			25	15	26	5
" Mauritius	"	25	0	0	0			25	0	25	10
PALM, Lagos	"	24	0	0	0			23	0	23	10
LINSEED	"	21	15	22	0			22	5	22	10
RAPESEED, English, pale	"	22	5	22	10			22	0	22	0
" brown	"	20	15	21	0			20	5	20	0
COTTONSEED, refined	"	18	5	18	15			19	0	20	0
LARD	"	37	10	38	0			33	10	36	0
TALLOW	"	17	0	29	6			23	0	29	6
TURPENTINE, American	per cwt.	24	6	25	6			25	3	0	0
PETROLEUM, Oil	per gall.	0	5½	0	5½			0	5½	0	5½
" Spirit	"	0	7½	0	7½			0	7½	0	8½
SEEDS.											
CANARY	per qr.	44	0	62	0			43	0	70	0
CARAWAY, Mogadore	per cwt.	31	0	0	0			31	0	0	0
" German, &c.	"	36	0	37	0			26	0	37	0
CORIANDER	"	14	0	19	0			14	0	19	0
HIEMP	per qr.	38	0	0	0			38	0	0	0
LINSEED, English	"	42	6	0	0			42	6	0	0
" Calcutta	"	42	0	42	3			43	6	0	0
" Bombay	"										

Oils:—(cont.)		July 30			August 13		
		£	s.	d.	£	s.	d.
SEAL, yellow to tinged..	per tun	19	0	20	19	0	20
" brown	"	16	0	18	15	0	18
SPERM	"	51	0	52	51	0	0
COD	"	25	0	26	25	0	0
WHALE, South Sea, pale	"	20	0	0	18	0	19
" yellow	"	16	0	17	16	0	17
" brown	"	15	0	16	14	0	16
" Sardine	"	19	0	20	19	0	20
OLIVE, Seville	per ton	40	0	0	40	0	0
" Tunis	"	0	0	0	0	0	0
" Levant	"	0	0	0	0	0	0
" Mogador	"	32	0	32	32	0	32
" Spanish	"	38	0	39	38	0	39
" Sicily	"	33	10	0	35	10	36
COCOANUT, Cochinchina ..	"	33	0	0	32	10	34
" Ceylon	"	25	15	26	25	15	26
" Mauritius ..	"	25	0	0	25	0	25
PALM, Lagos	"	24	0	0	23	0	23
LINSEED	"	21	15	22	22	5	22
RAPESEED, English, pale	"	22	5	22	22	0	0
" brown	"	20	15	21	20	5	0
COTTONSEED, refined ..	"	18	5	18	19	0	20
LARD	"	37	10	38	33	10	36
TALLOW	"	17	0	29	23	0	29
		£	s.	d.	£	s.	d.
TURPENTINE, American	per cwt.	24	6	25	25	3	0
PETROLEUM, Oil	per gall.	0	5½	0	0	5½	0
" Spirit	"	0	7½	0	0	7½	0
SEEDS.							
CANARY	per qr.	44	0	62	43	0	70
CARAWAY, Mogadore ..	per cwt.	31	0	0	31	0	0
" German, &c.	"	36	0	37	26	0	37
CORIANDER	"	14	0	19	14	0	19
HEMP	per qr.	38	0	0	38	0	0
LINSEED, English	"	42	6	0	42	6	0
" Calcutta	"	42	0	42	43	6	0
" Bombay	"	43	0	0	44	0	0
" Russian	"	40	6	0	0	0	0
MUSTARD, brown	per bush.	10	0	12	5	6	0
" white	"	7	6	9	7	6	9
POPPY, East India	per qr.	33	6	0	33	6	0
RAPE SEED	"	33	0	34	33	0	0
SPICES.							
CASSIA LIGNEA	per cwt.	23	6	24	24	0	24
" Vera	"	19	0	25	19	0	25
" Buds	"	37	6	41	41	0	41
CINNAMON, Ceylon:							
" 1st quality	per lb.	0	8	1	0	8	1
" 2nd ditto	"	0	7½	1	0	7½	1
" 3rd ditto	"	0	6	1	0	6	1
" Tellicherry	"	0	3	0	0	3	0
" Chips	"	0	1½	0	0	1½	0
CLOVES, Penang	"	0	11	0	0	11	0
" Amboyna	"	0	10	0	0	9½	0
" Zanzibar	"	0	9½	0	0	8½	0
GINGER, Jam., fine	per cwt.	70	0	83	40	0	80
" Ord. to good	"	33	6	65	36	6	65
" African	"	23	0	0	20	0	26
" Bengal	"	15	0	15	15	6	0
" Malabar	"	19	0	0	19	0	0
" Cochinchina	"	25	0	55	25	0	53
PEPPER, Black, Malabar	per lb.	0	7½	0	0	8	0
" Singapore	"	0	7½	0	0	8	0
" White	"	0	11½	1	1	0	1
" Cayenne	"	1	0	1	1	0	1
MACE, 1st quality	"	1	10	2	1	8	2
" 2nd and inferior	"	1	2	1	1	2	1
NUTMEGS, 78 to 60 to lb.	"	2	5½	3	2	4½	3
" 90 80	"	2	0	2	1	11	2
" 132 95	"	1	5	1	1	5	1
PIMENTA	"	0	2½	0	0	2½	0
VARIOUS PRODUCTS.							
COCHINEAL—							
" Honduras, black	per lb.	1	6	1	1	6	1
" silver	"	1	3	1	1	3	1
" Mexican, black	"	1	4	1	1	4	1
" silver	"	1	3	1	1	3	1
" Teneriffe, black	"	1	2	1	1	2	1
" silver	"	1	3	1	1	3	1
GALLS, Tky blue	"	46	0	56	47	0	54
" China & Corea	"	50	6	52	51	0	54
INDIGO, Bengal	"	2	6	6	2	6	6
" Madras	"	1	0	4	1	0	4
" Kurpah	"	1	6	5	1	6	5
" Oude	"	2	0	4	2	0	4
" Guatemala	"	2	2	6	3	2	6
ROSIN, American	per cwt.	3	6	10	3	6	10
SOAP, Castile	"	23	0	0	23	0	0
SOY, China	per gall.	1	3	1	1	3	1
WAX, BEES, English	per cwt.	£0	0	£0	0	0	£0
" Jamaica	"	6	0	7	6	0	7
" East India	"	5	0	7	5	0	7
VEGETABLE, Japan	"	£1	11	£2	10	£2	15
" Paraffin, refined	per lb.	0	4	0	0	4	0
WOOD, DYE, Bar	per ton	£3	10	£4	0	£3	10
" Brazil	"	7	0	13	7	0	13
" Cam	"	16	0	30	16	0	30
" Fustic, Cuba	"	4	0	5	4	0	5
" Jamaica	"	4	0	5	4	0	5
" Logwood, Campeachy	"	6	0	8	6	0	8
" Jamaica	"	3	10	4	3	10	4
" Lima	"	7	10	8	7	10	8
" Red Sanders	"	5	0	0	5	0	0



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

The Photographic Trade.

SIR,—I for one can endorse the views expressed by your correspondent "A Veteran Pharmacist" in last week's issue. As regards the likely profit to be derived from supplying amateur photographers (as for that, why only amateurs?) with photographic chemicals. There are comparatively very few who go in for amateur photography, and those that do generally prefer to obtain their chemicals from the many dealers, who can supply them with everything they are likely to require connected with the art, from the lens and camera down to the hypo. and cards. Besides, the "Photo Artists" now go in for the *dry* process, which dispenses altogether with the call for collodion, &c., necessary for the wet process; but probably the latter process is intended for the amateurs: and is there a possibility of the chemist being made the outlet for the articles used in a process now almost discarded by the photographers? I thought I should like to give you my short *unremunerative* experience on the subject,

August 10.

Yours faithfully,

So. Ho. So.

P. S.—Moral: Let photographic chemicals take care of themselves, and go in for plenty of your own proprietary articles, and push them.

In last week's CHEMIST AND DRUGGIST you ask for the experience of a photo dealer. I have only had four years of it, but it has been enough for me and others in the district who have given up the trade. The profits after paying expenses are not more than 10 or 12½ per cent., and that does not include interest on capital, time, and labour. Time is a very considerable item in the trade, as every amateur expects a lesson each time he gives his patronage. Prices are fearfully cut—far worse than patents. We get for pyrogalllic acid 1s. 1d. per oz., nitrate of silver 3s. 1d., hypo. soda 2d. per lb., gold 1s. 10d. per tube (Johnson's), pure sulphate of iron 2d. per lb. The large London dealers have with small profits about closed the trade (as an auxiliary one) to chemists—their prices are below these. It would pay if you could turn over 1,000% or 2,000% a year, but to do a trade of from 100% to 400% would not be worth while; and another thing—I believe it hurts the legitimate trade showing cameras and photographs in the window. If intending dealers will send for the large dealers' lists, as Fallowfield's, Marion's, and others, and also compare the prices in the *Journal of Photography*, they will not find much satisfaction.

August 10.

Yours truly,

DISPENSING AND PHOTOGRAPHIC CHEMIST. (196/27)

Medicine Chest Competition.

I was sorry to see one competitor putting what he thought the cost price to his chest, the prices being in many instances less than good drugs and chemicals can be had for. Such actions tend to lower the character of our business, by giving the impression that there is too much margin of profit between the prices he quotes and those usually charged,

whereas he makes no allowance for the time occupied in washing, drying, and filling the bottles, or for corks, labels, &c. If we look around us it is easy to find men who have not so much responsibility or care in their position of managers or superintendents, receiving at the rate of 6% to 8% per week for salary. Taking the average of 7%, this represents 20s. per day, and as all working days should be reckoned as ten hours, this gives 2s. per hour for time. Now I think it would not be possible to fit up the case referred to neatly under an hour, and in the preparation of medicines it is important to consider the item of time besides materials.

PHARMACIST.

Medicine Case Competition.—Mr. W. C. Halls, Newark, informs us that the case which he sent us was not from stock, but was specially designed and constructed for the competition. The special feature of Mr. Halls's case is that the medicines are numbered, not labelled with the names.

Aquæ or Aquam.

SIR,—The paragraph in your issue of last Saturday ought to be considered as a settlement of the grievous question of "aquam *v.* aquæ." The argument given by Mr. Blaker reminded me of an oracular remark made by a certain medical journal about four years ago. It appeared that someone had worked out the question rather elaborately and sent them an essay, evidently favouring the use of "aquæ." The argument was dismissed in such terms as follows:—"Our correspondent should know that aquæ is the ancient and aquam the modern style." I know the Latin of prescriptions is quite bad enough, but I was not aware that the medical profession, as represented in one of their best papers, favoured a bad modern development of an ancient and classical language.

I saw a prescription written by a young M.D. last week, in which he had adopted an ingenious idea which met both views. He wrote, "Aquam ad 3vj." The question has been worked out quite enough, so it is not worth my while trespassing on your valuable space to bring forward any further argument.

Yours respectfully,

C. B. G.

LEGAL NOTES.

49/193. *J. M.* has sent some Labels to Somerset House, and writes us concerning them. The following, they say, makes the preparation liable to stamp duty:—"CORN AND BUNION SOLVENT.—Apply every night and morning, and remove the destroyed portion after using the solvent for a week. Prepared by," &c.

"*J. M.*" asks "what portion of the label renders it liable." We presume that the Board considers that the label too flagrantly recommends the article. The following is reported to be "not liable":—"PECTORAL COUGH LOZENGES.—Directions for Use. One to be taken when the cough is troublesome, allowing it to dissolve gradually in the mouth, and two at bedtime, if necessary. Price, per Box. Prepared by," &c. Another label for "Quinine and Iron Tonic" states among a great deal besides that the preparation "will be found invaluable in all cases of," &c. That, of course, is "liable." But "*J. M.*" says:—"I see in THE CHEMIST AND DRUGGIST, May 22, a label for Quinine and Iron not liable to stamp duty. Supposing I have a label printed with that exact wording, can I rely on their decision in that case as applying to my label, which will be exactly like it? You may say 'Apply, to make quite sure;' but my answer is they are very prone to alter their opinion, and may have done so before my label reaches them." We do not think the Board would go back on a decision they had given, but we do not suppose they would accept an anonymous letter published in this Journal as proof of their having committed themselves to an opinion. We see no reason to doubt, however, that in the letter quoted they expressed a view which they would maintain. Finally, "*J. M.*" adds:—"I think it would be well if readers of your Journal would send you all labels which have been pronounced 'not liable,' so that others less fortunate may see wherein their 1½d. stamp has been incurred."

55/193. *A. E. C.*—Qualification in Queensland would not entitle you to carry on business elsewhere in Australia. The English qualification will, however, entitle you to get on the register of any of the colonies.

73/194. *W. B. P.*—We should think a medicine labelled as you suggest would not require a medicine stamp unless it were recommended by some other written or printed advertisements or circulars for the cure of some complaint. But the only way to be sure would be to draw up the label exactly as you propose to use it, and send it in duplicate to the Board of Inland Revenue, Somerset House, putting the question to them. You will then get an authoritative answer.

46/195. *H. Bell*—To register a trade-mark you must first obtain a form of application from the Trade Marks Registration Office, Southampton Buildings, London, W.C., and follow its instructions. Or you can employ an agent, who will put it through for you. See the advertisement of Messrs. Horn & Son in this Journal.

19/4. *Menth. Pip.*—Menthol is made from peppermint oil by exposing the oil to a low temperature, whereby the stearoptene of the oil, that is, the menthol, crystallises out. The oil of *Mentha piperita* has first, however, to be freed from the most volatile body. Menthol cannot be extracted from the plant direct: the oil must first be distilled from the fresh herb. The Perfumes from such plants as lavender, jessamin, rose, &c., may be extracted by distillation or with fat. In the distillation process a still is filled with the flowers, water poured in to cover them, and steam heat is applied, when the essential oil distils along with the steam, and is found floating on the surface of the condensed liquid. You might extemporise apparatus; for example, an ordinary tin kettle and a coil of gas-pipe would make a passable still, but you must have a licence to use even this homely apparatus, and as this costs 10s. a year you had better assure yourself that you will get value for your money. Extraction with fat is performed either by maceration of the flowers in melted fat, such as lard, or by *enfleurage*, which is simply a kind of maceration in the cold. Upon sheets of glass fitted in substantial wooden frames a thin layer of fat is spread, and this is sprinkled with the flowers. A pile of such frames is formed and allowed to stand for a period ranging from twelve hours to three days, when it is found that the odour of the flowers has passed to the fat. French essences are made from these perfumed fats by digesting them in spirit and distilling.

196/24. *C. T.* and 193/5. *Chemicus.*—Menthol Cone Holders of Turned Wood.—You may obtain this article from Messrs. Kilner Brothers, of King's Cross, London, who represent the New York house of E. B. Estes & Son, and who, we understand, have a large assortment of different shapes and qualities.

196/34. *E. H. Judge.*—A series of articles on **Dentistry for Druggists** was commenced in this Journal in May, 1884, and continued in June and September of that year. In those you will get full information regarding teeth extraction.

196/35. *Subscriber* (Leeds).—The iodoform odour is removed from mortars by first triturating in the mortar some pine sawdust. After the sawdust is removed pour a little methylated spirit in the mortar and ignite it. The iodoform residue is thus completely volatilised.

187/50. *Vichy.*—Vichy Water is used in kidney and liver complaints, and in diabetes and gout. The following is a substitute for it:—

Carbonate of soda	2 drachms
Common salt	2 grains
Sulphate of soda	8 "
Sulphate of magnesia	3 "
Sulphate of iron	1 "
Water	1 pint

Charge with about three volumes of carbonic acid gas.

Sticky Fly-papers.—Omit the spirit altogether, and dissolve the resin in the oil by aid of heat.

189/68. *J. H.*—Tonic Bitters.—Formulas are given on pages 242 and 549 of last year's volume. The former has been highly spoken of.

196/96. *Ink.*—It is **Evanescent Ink** which your customer refers to. Boil 10 grains of starch in 6 oz. of water for an hour, and when cold add 1 drachm of tincture of iodine. A quill pen should be used.

196/16. *W. H. Tunley.*—Worm Powders.—

	Drachms.
Santonin, in powder	1
Compound powder of jalap	3
Sugar	2

Mix.

Doses: 3 grains for children of one to two years, and for each additional year up to ten years $1\frac{1}{2}$ grain—that is, $4\frac{1}{2}$ grains to a child of three years. To be given at bed-time, and repeated two or three nights afterwards.

197/9. *Doctor.*—Nitro-glycerine acts by accelerating the action of the heart. We do not recommend you to touch either with it or valvular heart disease without medical advice. Hooper's "Physician's Vade-Mecum" (Churchill, 12s. 6d.) is a work which might suit you. A smaller and popular work is Begbie's "Medical Information and Advice" (Nelson, 2s. 6d.).

192/8. *J. W. Holley* (New Brunswick).—Use the pomade 144/34, page 397, in our issue of May 1. Rub the pomade into the roots of the hair every night for a fortnight, brushing well after the application. Then use the restorative hair lotion (acetic) given on page 96, July 17.

193/49. *J. M.*—Boiling water is ordered in the form 178/7 instead of tepid water. If percolation is adopted, cold water may be employed, and the spirit added to the first portion of water used.

Senega is exhausted by boiling in water. Spirit is the most satisfactory preservative.

C. B. (Glasgow), *Novacastrian*, and *J. B.*—Next week.

196/74. *Beccabunga.*—**Veterinary Treatise.**—THE CHEMISTS' AND DRUGGISTS' DIARY, 1883, is evidently the book you require.

J. H. (20/26) and *C. B. S.* (196/64).—Try occasional saturation of the spots with sweet spirit of nitre. If that does not answer, please send us a specimen, also of the ink, if possible.

185/20.—In reply to *J. T. R.* Messrs. Hudson & Co., 16 George Yard, Fenchurch Street, name themselves as white lac manufacturers.

193/60. *E. F.* **Rape Oil.**—To free it from the objectionable odour, to each gallon add $1\frac{1}{2}$ oz. of sulphuric acid previously mixed with the same quantity of water, shake well, and allow to stand for about a fortnight, when the oil is to be filtered through flannel. It is advantageous to wash the oil with water before filtration. We have not heard of permanganate of potash being used to deodorise or bleach the oil, but bichromate of potash is said to be very effective; a drachm or so dissolved in the above mixture of acid and water should be sufficient.

192/74. *Chemicus.*—**Acne.**—Liquor arsenicalis, in five-drop doses, taken with a teaspoonful of glycerine in half a winglassful of water immediately before food, is considered

the most reliable remedy by authorities. At the same time the following lotion may be used:—

						Oz.
Borax	..	..	..	..	..	$\frac{1}{2}$
Glycerine	..	..	..	..	..	$1\frac{1}{2}$
Rose water	..	..	..	..	..	6
Mix.						

To be applied several times a day. Try Lanoline soap.

194/44. *A. T. W. L.*—Mithridate is the name of the old Confectio Damocratis, and contains a large number of ingredients. The confectio opii of the French Codex, which contains about fifty ingredients, resembles it, but contains four times more opium. You will find the formula in the London Pharmacopœia or Gray's Supplement. It would occupy about half a column of our space. If you make the preparation, you will require 1s. an oz. for it.

195/22. *Seti.*—Toilet Vinegar:—

Balsam of peru	..	..	..	..	6 drachms
Benzol	..	..	..	..	12 "
Essence ambergris	..	..	..	..	4 "
Bergamot	..	..	..	..	2 "
Oil of neroli	..	..	..	..	20 minims
Vanilla	..	..	..	..	10 grains
Strong acetic acid	..	..	..	..	3 oz.
Water	..	..	..	..	2 "
Rectified spirit, to	..	..	..	..	40 "

Shake up the balsam with the benzol in a 3-oz. bottle, and after half an hour pour off the clear liquid; evaporate this on a water-bath until the odour of benzol has disappeared, and dissolve the yellow oily liquid which remains in the spirit; then add the other odorous ingredients, and digest for three days, after which add the acetic acid and water, and allow to stand for at least a fortnight before filtering.

19/9. *Equus.*—(1.) **Temperance Alcoholic Beverages.**—Two per cent. of proof spirit is the largest amount which is allowed to go duty free; this rule holds good whether the alcohol is produced in the beverage by fermentation or whether it is added to it as a preservative.

(2.) **Powdered Aromatic Seeds**, which become mouldy when kept in bottles, keep much better in wood boxes lined with tinfoil.

(3.) The preparation referred to *was* peroxide of hydrogen. There is nothing else so safe and cheap.

(4.) Can you or any reader inform me why this preparation turns black when exposed to the sunlight?

					Oz.
Bismuth, subnit.	..	..	..	..	1
Zinc oxid.	..	..	..	..	1
Cretæ gal. levigat.	..	..	..	..	1
Glycerini	..	..	..	..	$\frac{1}{2}$
Aq. flor. aurant.	..	..	..	..	$2\frac{1}{2}$
Aquæ destillat.	..	..	..	..	12

I have also tried zinc oxide, glycerine, and distilled water; but this also turns black.

53/195. *Excelsior.*—We cannot recommend any better means of obtaining situations than by advertising in this journal. An assistant who could not speak French at all would not be in great demand for Paris pharmacies.

W. Robinson (Haworth).—An explanation of the salve recipe was published last week.

For **Corking Apparatus** such as was asked for Mr. G. E. Pearson, North Allerton, suggests Mr. W. R. Loftus, 146 Oxford Street, W.

72/193. *Veteran.*—We cannot possibly judge for you whether you are more likely to get on as a chemist or a veterinary surgeon. You are not likely to succeed brilliantly in either occupation if you confine your contemplation to the difficulties.

56/193. *C. R. L.*—If you would look through our last six or eight issues, and also look to our advertisements, you would find all that we can tell you about the photographic trade.

195/72. *W. Banbury.*—**Cocaine in Dentistry.**—Dissolve 1 grain of the hydrochlorate in 6 minims of water, and of this inject 3 minims into the gum around the tooth, and administer the remainder in two portions at intervals of two to three minutes. For full details, see *THE CHEMIST AND DRUGGIST*, May 1, page 387.

DISPENSING NOTES.

[The opinion of practical readers is invited on subjects discussed under this heading.]

SIR,—I recently dispensed a prescription consisting of—

Acet. cantharid.	..	..	..	..	3vj.
Sp. camphor.	..	..	..	..	5ij.

which had to be applied to the chest of a young lady every night till redness appeared. The first application produced extensive blistering. The same prescription had been previously prepared at Croydon, and the patient had used it for three nights in succession before redness appeared. Another chemist here prepared the application, and it proved to be as potent as mine. Finally, my customer sent for a further supply to Croydon, and received again a milder preparation, as at the first. My acet. canth. had only recently been received into stock from a thoroughly reliable house. I tried its effect on my arm, which was *nil*, whilst on that of my senior apprentice it produced quite a blister. The Croydon preparation did not blister either him or me. Perhaps some of your readers can throw a little light on this subject, which has a good deal of interest for dispensers.

Hastings, August 5.

Yours truly,
THOS. D. VINT.

Dispensing Prices.

SIR,—To-day I had the following prescription brought to be dispensed, with the prices added, as shown:—

Balsam. copaibæ	..	..	..	3ijj.	1d.
Sp. æther. nit.	..	..	..	3ijj.	1d.
Liq. potassæ	..	..	..	3ij.	1d.
Tr. lavand. co.	..	..	..	3ij.	1d.
Glycerini	..	..	..	3ss.	2d.
Mist. camph. ad	..	..	..	3viij.	1d.
3j. ter in die post cibo.					

Now, sir, I do wish my fellow retail chemists would make an effort to rise a little in their own estimation, and charge a proper price for their labour.

I can imagine this prescription, as it has no signature, having been written by some disciple of Esculapius whose good nature would respond to the offer of "a refresher," or the desire to help an unfortunate friend; but it is too bad to add the price he thinks it should be prepared for.

I told my customer that it could not be properly compounded at the prices attached, and he at once agreed to give me the ordinary charge (1s. 6d.), and further gave me instructions to prepare an injection and supply an I. R. syringe, paying me 3s. 8d., thus showing that the public are disposed to pay a reasonable price for proper medicines and attention.

PHARMACIST.

Information Wanted.

193/49. *J. M.* would like to know what is sold for acid of vitriol in lumps. It is inquired for by "costers," who enclose it in a rag and tie it to a horse's bit when "off its feed."

196/92. *J. B.* has been retailing **Dantzic or Black Beer** for medicinal purposes, and has received an intimation that it is illegal without a licence. Have the readers of this Journal had the same intimation?

51/193. *A. W.* would like the formula for **Lyon's Tooth Tablets**.

PURE OXIDE OF ZINC (HARRIS & CO.'S)

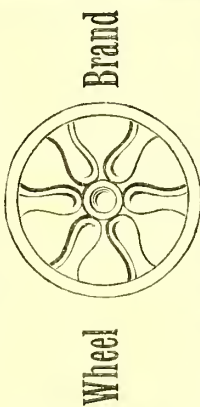
In 1-lb., 2-lb., 4-lb., 7-lb., 14-lb., and 28-lb. Boxes, 1/- lb. Special quotations to large buyers.

N.B.—EVERY PACKAGE HAS OUR SEAL UPON IT.

Great care is used in the preparation of our Oxide of Zinc, and it is superior to the ordinary Oxides sold as B.P., which frequently contain Arsenic and Sulphate of Zinc in sufficient quantities to prove irritating to the skin.

PHILIP HARRIS & CO., Manufacturing Wholesale and Export Chemists, **BIRMINGHAM.****PAUL METZ,**
10 Jewin St., London, E.C.,

SOLE CONSIGNEE OF THE

**BEST QUALITY**
WHITE WILLOW BOXES.AGENT FOR THE BEST CONTINENTAL MANU-
FACTURERS OF**GERMAN SASH TOOLS**
AND**CAMEL-HAIR PENCILS**
OF ALL DESCRIPTIONS.**THERMOMETERS, LACTOMETERS,**
HYDROMETERS, &c.,

AND ALL KINDS OF

CHEMICAL GLASS APPARATUS.

"ACME" AND "XLCOR"

GERMAN POLISHING PASTE
(PUTZ POMADE).

"ACME" HARD AND SOFT

MEDICINAL CAPSULES, PERLES, &c.**MENTHOL CONES, &c.****THE LAMELLÆ OF THE NEW PHARMACOPŒIA** CAN BE OBTAINED IN BULK AND IN TUBES OF **SAVORY & MOORE,***The Original Makers of Ophthalmic and Hypodermic Discs, and other Medicated Gelatine Preparations,*

And whose Discs were taken as the Standard by the Pharmacopœia Authorities.

The following Extract from the "BRITISH MEDICAL JOURNAL," of February 6, 1886, page 257, speaks for itself:—

"Our attention has been called by Messrs. Savory & Moore to a statement made in a circular recently issued by another firm of chemists, the purport of which would be to deprive them of the priority of invention and manufacture of the medicated gelatine discs now extensively in use for ophthalmic and hypodermic purposes. The fact is on public record, that these ophthalmic discs were first prepared by Messrs. Savory & Moore in the latter part of 1873, when they were extensively employed by Mr. Ernest Hart in the ophthalmic department of St. Mary's Hospital, as well as in private practice. This settles the question."

The Hypodermic Discs were first made by SAVORY & MOORE at the suggestion of Dr. ERNEST SANSOM in 1874.

SAVORY & MOORE, 143 NEW BOND STREET, LONDON, W.**SOLE IMPORTERS**

OF

APOLLINARIS WATER,**FRIEDRICHSHALL WATER,****HUNYADI JANOS WATER,****THE APOLLINARIS COMPANY, LIM.,**

19 REGENT STREET, LONDON, S.W.

SPECIAL PRICES ON APPLICATION.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.**BARRON, SQUIRE & CO.**

(LATE DREW, BARRON, & CO.),

**WHOLESALE & EXPORT DRUGGISTS,
BUSH LANE, LONDON, E.C.,****MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,
Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive
careful attention and prompt execution**

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having **PURCHASED THE BUSINESS** of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

GEORGE WALKER, late of the Firm of Wyleys & Co.; CHARLES TROKE, of the late Firm of Gabriel & Troke
TRADING AS

WALKER, TROKE & CO.,**WHOLESALE AND EXPORT DRUGGISTS,****82 CITY ROAD, LONDON, E.C.,****Makers of Pharmaceutical Preparations of every description;****Original Makers of REGISTERED GELATINE COATED HORSE, DOG, & OSTRICH BALLS.**

**Respectfully solicit a share of the suffrages of the Trade. They base their claims to
support upon their endeavour to carry on business upon the undermentioned principles:**

Personal Management and Representation in Town.**Personal Representation in the Country.****Personal Identification with the interests of their Town, Country, and Foreign Customers.****EXPORT ORDERS RECEIVE CAREFUL ATTENTION.****SPECIAL QUOTATIONS TO LARGE BUYERS.****"FOR THE BLOOD IS THE LIFE."****CLARKE'S
WORLD FAMED
BLOOD MIXTURE,
The Great BLOOD PURIFIER and RESTORER.****(Registered Trade Mark—"BLOOD MIXTURE.")**

The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.
Wholesale of all the Wholesale Houses. Net Wholesale Price, 23/- per doz. Usual terms.

Sole Proprietors, THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c.
or Advertisements, or in any way infringing their rights,

Extractum Cinchonæ

Liquidum.

Messrs. Howards & Sons,

Referring to the recent papers on the above subject, desire to call attention to their

“Ext. Cinchon. Liq. H. & S., Califaya.”

“Ext. Cinchon. Liq. H. & S., Succirubra.”

which are prepared from selected Cinchona without the use of mineral acids, contain the whole alkaloidal contents of the bark, are uniform in quality, and carefully standardised. Each preparation contains 48 grains alkaloïds per fluid ounce—the former representing fine *Verde* Califaya, and the latter good Succirubra.

Packed in 4, 8, or 16 oz. bottles, or bulk.

~~~~~  
*May be ordered through any Wholesale House.*  
~~~~~

PRICES FOR LARGE QUANTITIES ON APPLICATION.

Prize Medals were Awarded to us at the Great International Exhibitions 1851, and 1862, for the General Excellence of our Goods. ESTABLISHED UPWARDS OF A CENTURY.

BUTLER, McCULLOCH & CO., COVENT GARDEN MARKET, LONDON.



WHOLESALE IMPORTERS AND EXPORTERS OF ALL KINDS OF
MEDICINAL AND CULINARY HERBS, ROOTS, BARKS, SEEDS, AND
PREPARATIONS. DISTILLERS OF PERFUMED & MEDICINAL WATERS.

All Powdered and Crushed Articles are prepared in London. Absolute Purity is thus assured.

The greatest care and judgment used in the selection and packing of indents.

REGISTERED TELEGRAPHIC ADDRESS—"ANTIQUITY LONDON."

SPECIALITIES.—MEDICINAL HERBS PACKED IN PATENT CARDBOARD BOXES

Which can be opened for examination of contents and closed up again without detriment to the package.

PRICE LISTS, SAMPLES, AND SPECIAL QUOTATIONS ON APPLICATION.

BOTANIC DRUGS & PREPARATIONS.

ESTABLISHED 1812.

PRIZE MEDAL



HEALTH EXHIBITION.

SPECIALITIES—Herbs, Roots, Barks, Essential Oils, etc.

FLUID EXTRACTS, American Active Principles.

SWEET and MEDICAL HERBS in packets, and all articles
used in the Botanic Practice of Medicine.



BY APPOINTMENT.

POTTER & CLARKE, 75 WESTON STREET, S.E., and
VIADUCT HOUSE, FARRINGTON ST., E.C. **LONDON.**

Price Lists Gratis.

Foreign indents receive our special attention.

JENSEN'S COD LIVER OIL.

ICE REFINED—ABSOLUTELY PURE.

In Casks (Tin-lined), in 6-Gal. Drums, in Winchesters, or in Bottles.

PRICES AND SAMPLES ON APPLICATION.

Professor Sir CHAS. A. CAMERON, President of the Royal College of Surgeons, Ireland, &c., &c.—"I consider the colourless Cod Liver Oil prepared by Messrs. J. Jensen & Co. to be a very fine article, quite free from the rancid odour and nauseous flavour so often met with in Cod Liver Oil, especially those dark in hue."

SOLE AGENTS:

HERTZ & COLLINGWOOD,

Telephone
No. 573.

101 LEADENHALL STREET, LONDON.

For Telegrams—
"Freshness."

INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

COD LIVER OIL.

The Only GOLD MEDAL

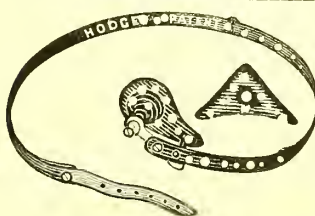
For British Exhibitors was awarded to

T. J. SMITH,

10 & 11 NORTH CHURCH SIDE, HULL.

Importer of Norwegian, Newfoundland, & other varieties.

Low Quotations on application. Delivered at London or Liverpool.

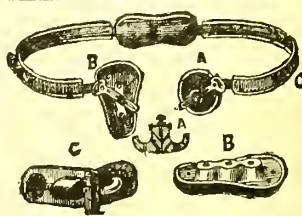


HODGE'S IMPROVED TRUSS.

The Lancet, in recommending Hodge's Truss, on Oct. 3, says:—"The pad gives an elastic pressure—a very great advantage—enabling it to be worn with great comfort. The truss is light, though strong; possesses such advantages that it is comfortable, adapts itself readily to the movements of the body, and is very effective."

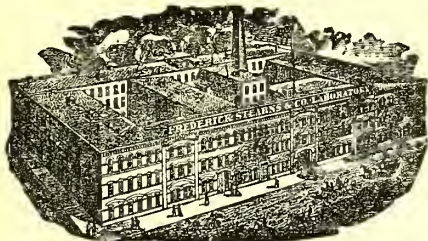
British Medical Journal says (Dec. 19):—"Hodge's Trusses have met with the high approval of surgeons who have had great experience in the treatment of rupture."

HODGE & CO., 327 OXFORD STREET, W.
FACTORY: 18 JAMES STREET W.



FREDERICK STEARNS & CO.

Manufacturing Pharmacists, Detroit, Mich., U.S.A.

Our Illustrated Pharmaceu-
tical Catalogue,
No. 83, of 100 pages

Established 1855. Largest Laboratory of its kind in the world.

Manufacture FULL LINES of FLUID & SOLID
EXTRACTS, SUGAR, GELATINE and COM-
PRESSED PILLS, ELIXIRS, POWDERED
DRUGS, &c., &c.

ORIGINATORS AND MANUFACTURERS OF

POPULAR NON-SECRET MEDICINES.

Our NON-SECRET MEDICINES are Popular Remedies prepared for Household use, without secrecy or fraud, for the purpose of replacing patented or quack medicines. We sell them in all parts of the world. They are pharmaceutically prepared from best materials, according to reliable formulae, and cost the retailer much less than patents. Each package bears the retailer's address as proprietor. Externally they surpass in beauty anything ever offered to the trade. TWENTY THOUSAND RETAIL DRUGGISTS HANDLE THEM. Wrappers can be furnished entirely in any language, or English, with directions in Spanish, French, and German.

We deliver for export free at New York, New Orleans, or San Francisco. We will send free on application our Illustrated Catalogue, No. 84, which fully explains plan and gives particulars. It contains 100 pages and 200 illustrations. Can be had in English or Spanish.

We invite inquiries for Special Formula work, as we have the finest facilities for preparing such in any shape desired, and will furnish proof of wrappers in colours and any language when desired.

We are large importers of crude drugs, and can exchange our products for such. Orders sent through responsible commission merchants will be attended to as promptly as if sent direct. Correspondence solicited in all languages.

FREDERICK STEARNS & CO., DETROIT, MICH., U.S.A.
LONDON: 3 COLEMAN STREET.

METCALF'S COCA WINE

From Fresh Coca Leaves.

A PLEASANT TONIC AND INVIGORATOR.



Public Speakers, Singers, and Actors have found Wine of Coca (METCALF'S) to be a valuable tonic to the vocal cords, and also a sedative, allaying nervous fright without perceptible after-effect. It is agreeable to the taste, and can be prescribed for children or convalescents. Athletes, Pedestrians, Bicyclists, Tennis and Base Ball Players have found by practical experience that a steady course of Coca, taken both before dining and after any trial of strength or endurance, will impart energy to every movement, and prevent fatigue and waste from the system.

SEND FOR QUOTATIONS IN BULK.

THEODORE METCALF.] ESTAB. 1837. [FRANK A. DAVIDSON

THEODORE METCALF & CO.,

39 TREMONT STREET, BOSTON, MASS., U.S.A.

NEW YORK AGENCY—

E. FOUGERA & CO., 30 North William St., New York, U.S.A.

And the Retail Drug Trade throughout the World.

HENRY'S GREAT INDIAN REMEDIES.

شفا تے مریمیاں ہنری کا تیم



"THILUM," for Rheumatism, Neuralgia, Wounds, Bronchitis, Chilblains (Broken or Unbroken).

"OMUM CARPOOR," for Indigestion, Cholera, Colic, Flatulence, Dysmenorrhœa.

"JVARA-HARI," for Fevers, particularly Malarious kinds, and as a Tonic.

"HIPPACEA," the Stable Requisite for Broken Knees, Cracked Heels, Sprung Tendons, Mange, &c.

INDIAN OFFICE

ARMENIAN STREET, MADRAS.

F. H. BOWDEN, MADRAS, INDIA, & 43 KING WILLIAM ST., LONDON, E.C.

Telegraphic Addresses—"HIPPACEA LONDON," "BOWDEN MADRAS."

N.B.—Agents required everywhere. Good terms if references satisfactory. Correspondence in English, Spanish, French, German, and Italian.

HOP BITTERS CAUTION.

Our Preparation being duly Registered and Trade Marked under the Laws of Great Britain, and having been placed before the Public at great expense to us, we give notice that we shall fully protect our rights in every instance. Anyone making use of our Title, Labels, Bottles, or in any way attempting to trade on our reputation will be dealt with at once to the fullest extent of the law.

HOP BITTERS CO., London.

GOLD MEDALS—DUBLIN, 1882; BOSTON, 1883;
LONDON (INTERNATIONAL EXHIBITION), 1884.

SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of
ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.
Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing nearly
Double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

SIR JAMES MURRAY'S FLUID CAMPHOR

Is a valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, 1/ and 2/ each.

SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin.
BARCLAY & SONS, 95 Farringdon Street, London.

WYLEYS' GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List of REDUCED
PRICES on application.

POWDERED DRUGS. All ground in our own Mills, and of Guaranteed Purity.

EXTRACTS (ENGLISH).

CONCENTRATED INFUSIONS AND DECOCTIONS. GRANULAR EFFERVESCENT PREPARATIONS.
GELATINE COATED HORSE BALLS (PATENTED).

Forwarded on application { PRICES CURRENT, LIST OF SPECIALITIES, PILL LIST (GELATINE OR PEARL COATED).

WYLEYS & CO., COVENTRY.

LONDON ADDRESS—1a BURY STREET, ST. MARY AXE, E.C.

DINNEFORD'S FLUID MAGNESIA.



*The most efficacious antacid and mild aperient for
Delicate Constitutions, Ladies, Children, and
Infants.*

DINNEFORD & CO.,
Pharmaceutical Chemists,
180 NEW BOND STREET, LONDON;
AND ALL WHOLESALE DRUGGISTS

LIEBIG'S "IODIZED" COD LIVER OIL,

ALMOST TASTELESS.

The powerful curative properties of this Oil have been fully demonstrated by the most eminent Physicians in Europe. It is well put up in Cardboard boxes, with tasteful, attractive Wrapper, suitable for first-class Shop Window or Counter-case.

Sells:—Imperial Pints, 4s. 6d., Half-pints, 2s. 6d.

PRICE DISPLAYED ON BOTTLE, LABEL, AND WRAPPER.

The Trade Mark, "IODIZED COD LIVER OIL," is moulded in the glass of every bottle.

SHOW CARDS AND COUNTER BILLS FORWARDED FREE.

Sole Proprietors:

J. E. BEESLEY & SONS,
Redcross St., Borough, London, S.E.

And through all Wholesale Houses.

HEARN, RIDDELL & CO.,

GLASS BOTTLE MANUFACTURERS,

381 to 383 KINGSLAND ROAD, LONDON, E.

Glass Bottles of every description, either Plain or Stoppered, made in White, Blue, Amber, Actinic Green, or any other colour required. Screw Nickel Capped Pomades, Honey Pots, Jelly Jars, &c., &c.

Makers of Opal Glass Covered Pots, in all sizes, which are far more Handsome and Cheaper than Earthenware.



H., R. & CO.'S PATENT GLASS SCREW STOPPERED FEEDING BOTTLES are the MOST PERFECT and Best to be obtained, and command a Ready Sale wherever introduced.

Special Attention given to Quality. Quotations Post Free to any part of the world on application. The above will be found the BEST and CHEAPEST HOUSE in the TRADE.

FOR
DISPENSING, DRUGS,
OILS,
MINERAL WATERS,
PERFUMERY,
PATENT MEDICINES,
&c., &c.

GLASS BOTTLES

MANUFACTURED BY

KILNER BROS.

FOR
FEEDING,
In GREEN &
WHITE GLASS,
and all
Kinds of Fittings.
Best Quality.

No. 3 GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

HOME and FOREIGN BUYERS are invited to Correspond with us, as we have a very LARGE SELECTION to choose from
Send for our Illustrated Price Current—a Revised Edition just out.

C. R. LINDSEY & CO.

(LATE A. H. JACKSON & CO.),
MAKERS OF

ACETIC ACID

AND

SUGAR OF LEAD

(WHITE AND GREY).

SANDY LANE CHEMICAL WORKS,
CLAYTON, nr. MANCHESTER.



VINUM AURANTII.

SPECIALY PREPARED FOR THE DISPENSARY.

Samples and Terms on application to

ROSS & CO., LTD.,
WESTON-SUPER-MARE.

HIGHLY COMMENDED BY THE "LANCET."

Colonial and Foreign orders promptly executed.

THE NORTH LONDON GLASS BOTTLE CO.

(I. ISAACS & CO., Proprietors),

OUR NEW SPÉCIALITÉ BOTTLES

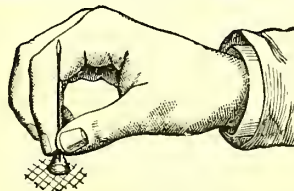
THE HANDSOMEST DISPENSING BOTTLES MADE.

We supply them, 6-oz. and 8 oz., 10/ per gross; 3-oz. and 4-oz., 9/ per gross. Those requiring a first-rate Bottle should see them before ordering of any other house. We also continue to supply our Second Quality Bottles, with name in scroll if required, 6-oz. and 8-oz., 8/ per gross; 3-oz. and 4-oz., 7/ per gross. These are first-rate value for the money. White Phials at greatly reduced prices, which may be had on application; also a sample bottle of any kind sent free.

Bankers—London & Westminster Bank. Established 50 Years.

Warehouse: 25 Francis St., Tottenham Court Road, London, W.C.

Trade Mark.



Registered.

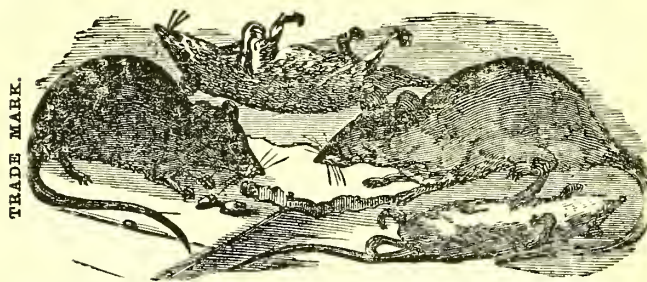
THE ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Three Tubes, two-thirds full, 5s.; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen Charged Small Points, 5s. Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, 25 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccinations daily, between the hours of 12 and 2, by the Consulting Physician, at the uniform fee of a guinea. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to

EDWARD DARKE, Secretary.

Office hours, 10 to 4; Saturdays 10 to 2.

BATTLE'S VERMIN KILLER. { Mice eat it readily and Die on the spot.



Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—*Thousands might be published.* From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1887.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.
No Chemist or Storekeeper should be without a supply.



BY SPECIAL APPOINTMENT.

SPRATTS PATENT

MEAT "FIBRINE" VEGETABLE DOG CAKES (WITH BEETROOT).



BY SPECIAL APPOINTMENT.

DOG MEDICINES for the Cure of Distemper, Worms, Mange, Eczema, Ear Canker, Rheumatism, and the various other Canine Diseases. Full List and Pamphlet on Canine Diseases, post free.

"COMMON SENSE OF DOG DOCTORING," price 6d.

DOG SOAP.

LOCURIUM. Price 6d. and 2s. per Bottle, retail. A Patent Vegetable Oil, curing Sore Feet in Dogs, Cracked Heels, Broken Knees, or Sore Backs in Horses; and Sores, Bites, and Wounds of all kinds either in man or least Small Pamphlets on Canine Diseases supplied free for distribution.

WHOLESALE TERMS OF **SPRATTS PATENT LIMITED, LONDON, S.E.,** OR YOUR WHOLESALE HOUSE.

HORSES.—LIEUT. JAMES' BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).



THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICES:—
1 oz. pots from 14/- per doz. to 12/6 per doz. 1 lb. pots from 24 4 0 per doz. to 24 0 0
2 " " £1 5 8 " £1 3 0 " 1 " " 7 16 0 " 7 10 0
4 " " 2 8 0 " 2 4 0 "

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, BUTLER & CRISPE, 4 Cheapside; NEWBURY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES & CO., Dublin; GOULDING, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to R. J. JAMES, South Retford, Notts.

JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

"Concilio et Labore."

THE MANCHESTER COLLEGE OF CHEMISTRY & PHARMACY, 225 & 227a Oxford St., Manchester.

ESTABLISHED 1877. MANCHESTER 1882.

Seven men from this School have passed at the July Minor Examination, viz:—

Mr. W. A. COCKSHOTT	Mr. W. GREAVES
" T. E. DAWSON	" R. PICKERING
" E. FORBES	" E. THOMAS

Mr. J. A. WILKINSON
AND

Mr. JAS. GARNETT (June exam.)

During the year ending in JULY, 25 men from this School have passed the MINOR, 4 the MAJOR, and 8 the PRELIMINARY.

The LABORATORIES, DISPENSARY, and MUSEUM are being thoroughly cleaned and re-arranged, and every pains will be taken to make the coming Session even more successful than former ones.

The NEXT SESSION will begin on SEPTEMBER 1, and the Classes will be conducted as usual by Mr. TURNER, Director, Mr. CLAYTON, and Mr. TAYLOR, viz:—Distinct Courses of Full Time, Afternoon, Once-a-week, and Evening Classes for Minor, Major, and Preliminary—each Class working independently, and every man receiving full attention.

All fees are low, payable in advance, and are reduced if payment is made for three or more months (no extra charges whatever are made, as all fees are inclusive).

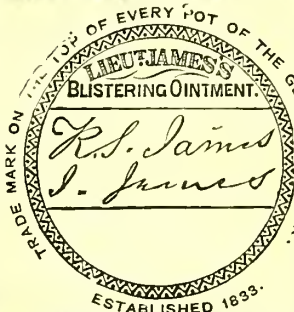
ESTABLISHED 1833.

HORSES.—LIEUT. JAMES' BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

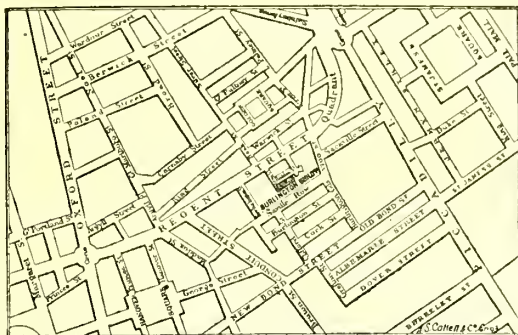
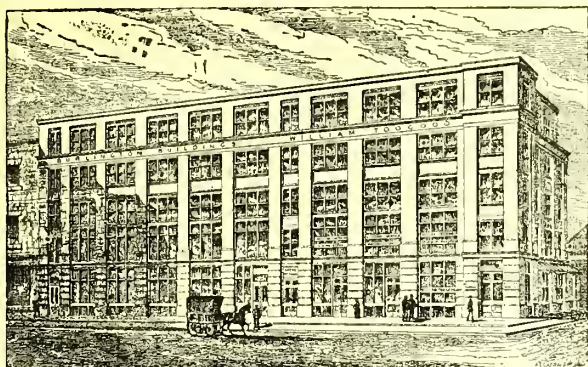
The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, are now and have been Agents 52 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 167 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lecher & Evans, Bartholomew Close; Burgoyne, Burbridge & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclays, Birmingham; R. Hovenden & Sons, 93 & 96 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 0 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 53 Hanover Street, Liverpool; Bollean & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacere, Pharmacie Anglaise, Bruxelles. And by all Chemists, in Pots, 1/6, 2/3, 5/6, 9/6, and 16/.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Vanistreet & Co.

W. H. JAMES, Sole Manufacturer, STAMFORD, FARRINGDON, BERKS. Advertised in "Bell's Life" 56 years. Beware of Spurious imitations.



WILLIAM TOOGOOD'S NEW PREMISES.

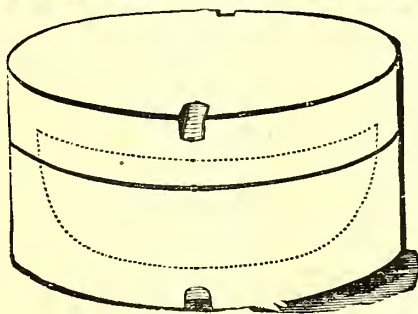
WILLIAM TOOGOOD,
WHOLESALE AND EXPORT
GLASS BOTTLE MANUFACTURER
 AND
DRUGGISTS' SUNDRYMAN,
 HAS REMOVED FROM
 35, 36 & 37 MOUNT STREET, GROSVENOR SQUARE, W.,
 TO
 BURLINGTON BUILDINGS,
 HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT
EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade, and possess the following Advantages:—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

PRICES, per gross.

$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$ oz.
18/-	18/-	18/-	20/-	22/-	24/-
2	3	4	6	8 oz.	
27/-	34/-	42/-	54/-	66/-	

AUSTRALIAN AGENCY AND SAMPLE ROOM:

Mr. A. I. JOSEPH, Bond Street, Sydney.

Telegraphic Address: "TOOGOOD LONDON."

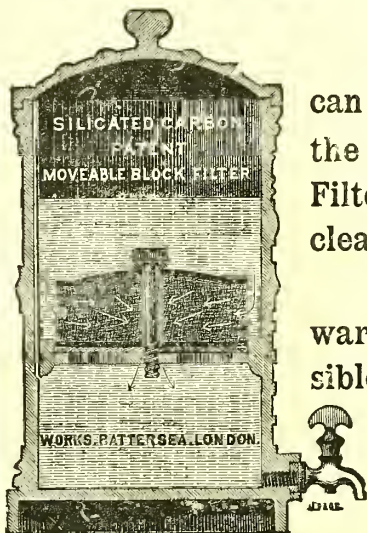
Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

SILICATED CARBON PATENT MOVABLE BLOCK FILTERS.

LIBERAL DISCOUNT TO THE TRADE.



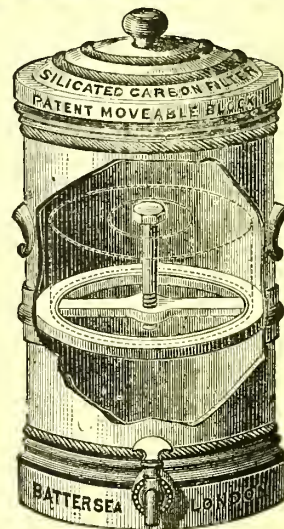
(Section.)

Domestic Filters (as above), in Cream-coloured Stone-ware, with Plated Taps and Patent Movable Blocks:—

No. 27.	O. 1 gal. 10/6 each.	D. 6 gals. 42/- each.
	A. 1 " 14/6 "	E. 8 " 52/- "
	B. 2 " 21/- "	F. 12 " 70/- "
	C. 4 " 32/- "	



No loose Pan or inner vessel to cause breakage.



(Elevation with Block removed.)

Dining Room Filters, in Marbled China, with Plated Taps and Patent Movable Blocks:—

No. 22.	A. 2 gals. 35/- each
	B. 5 " 80/- "

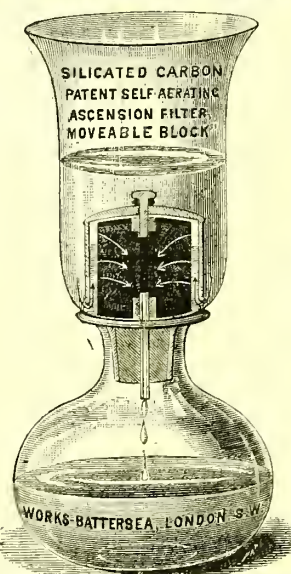
Refrigerative Terra Cotta, do. do.:—

No. 25.	2 gals. 31/6 "
---------	----------------

LIBERAL DISCOUNT TO THE TRADE.

THE NEWEST AND MOST EFFICIENT TABLE FILTER.

The water ascends in the direction indicated by the arrows, and each time the top glass is filled the air under the porcelain cover is forced through the Silicated Carbon Block, which is thus automatically aerated.



By simply removing the glass peg the Silicated Carbon Block is at once released for cleansing or renewal.

The Carbon Blocks are efficiently cleansed by boiling, and extra blocks can be supplied with each Filter when desired.

No. 28.

PLAIN GLASS.

No. O—1 Pint	...	...	2/6 each.
" A—2 "	...	...	4/- "
" B—3 "	...	...	5/6 "

No. 38.

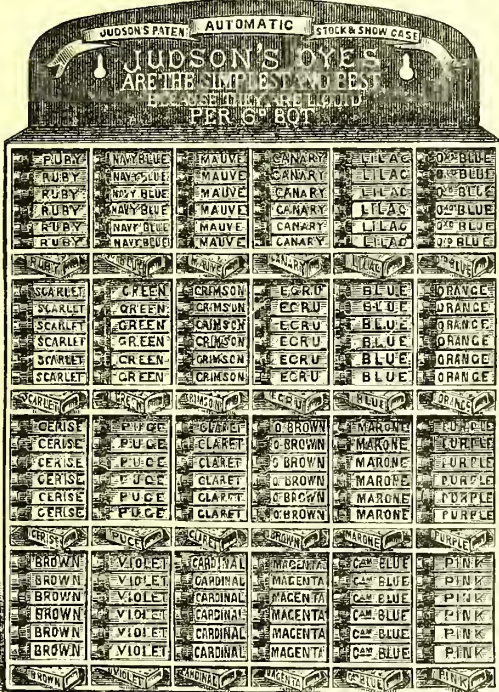
ENGRAVED GLASS.

No. O—1 Pint	...	...	3/6 each.
" A—2 "	...	...	5/6 "
" B—3 "	...	...	7/6 "

FOR FULL ILLUSTRATED LISTS WRITE TO THE

SILICATED CARBON FILTER COMPANY,
CHURCH ROAD, BATTERSEA, LONDON, S.W.

THE LATEST INVENTION!!!



THE NEW

PATENT SHOW CASE,

SHOWN IN THE ABOVE DRAWING,

Is made to hold 7 Bottles of each of the 24
Leading Colours of

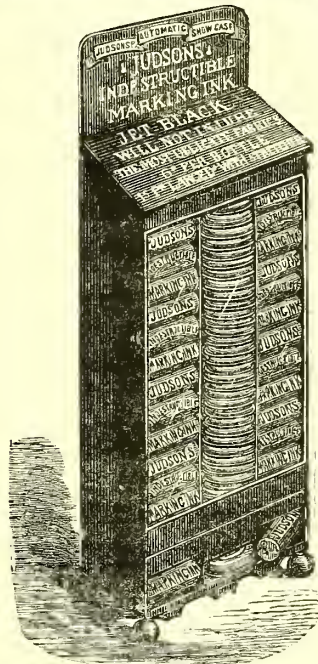
“JUDSON'S DYES.”

CASE WITH CONTENTS COMPLETE,

48/- (subject).

This is the most attractive and convenient Show Case ever offered to
the Trade; may be hung up, or will stand on counter.

The Bottles are so arranged that when one is removed another
immediately takes its place.



AUTOMATIC

SHOW CASE,

TO CONTAIN

3 dozen 6d. and 3 dozen 1s.

OF

**JUDSON'S “INDESTRUCTIBLE”
MARKING INK.**

PRICE COMPLETE WITH CONTENTS,

36/- (subject).

To stand on counter, or may be hung on wall.

Wherever these Cases are shown the sale is very
large, and this Marking Ink, which is an **entirely**
new invention, is the only Marking Ink
ever invented that is absolutely indelible.

DANIEL JUDSON & SON, L^{IM}.

77 SOUTHWARK STREET, LONDON, S.E.

Matthews's

Fullers Earth.

Used in
the Royal
Nurseries,
and highly
recom-

mended by the Faculty; it
protects the Skin from cold
winds, chaps, &c., and pre-
serves the Complexion.

SOLD BY ALL THE WHOLESALE HOUSES.

ROUSE & CO., 12 WIGMORE STREET, LONDON.

ROZALUM

(REGISTERED)

POWDER OR PASTE

IS THE BEST DENTIFRICE.

It is scientifically prepared by a Dental Surgeon, of large practice and great experience, and is intended to supply a long felt want, viz., a Preparation that will thoroughly cleanse the Teeth, and at the same time help to preserve them. As a stimulant to the Gums, and a preservative of the Teeth, Rozalium is not to be surpassed; it gives to the Teeth a pearly whiteness, to the Gums a healthy rosy colour, whilst it prevents decay by neutralising the acids which accumulate between the Teeth, and imparts to the Breath a most delicious fragrance.

In Bunch, Pot, and Bottle, 1s. 6d. and 2s. 6d.

May be obtained from the Wholesale Houses, or direct from the Proprietor—

J. W. MARTIN, Dental Surgeon,
PENGH.

TRADE NOTICE.

WHEELER'S GLYCERINE JELLY is NOT LIABLE to Patent Medicine Stamp Duty. Any stock held bearing labels issued prior to 1st of January last may be EXCHANGED on returning it to the Wholesale House it was obtained from, or direct from 143 HACKNEY ROAD, LONDON, E.

Please observe the new label now in use is identical with the old, minus two words—

"BROKEN CHILBLAINS."

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1, 1 0, & 3 6; Wholesale, 7, 12, & 22 6 per doz.

This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

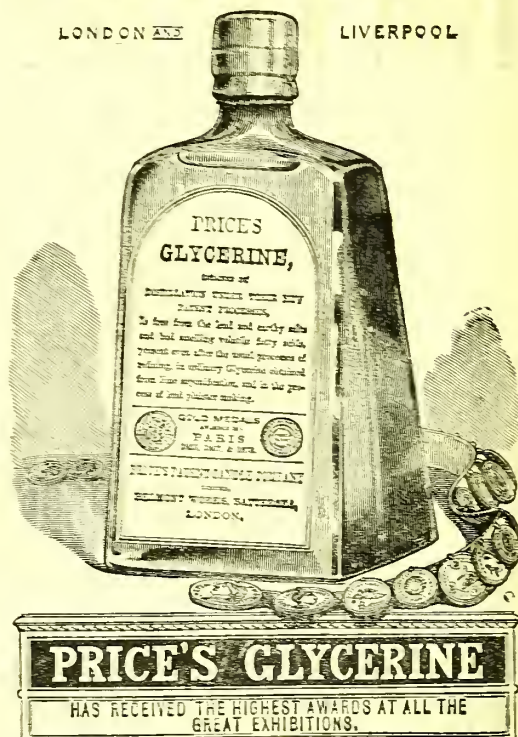
Sole Consignee—THOMAS WEST, 59 and 61 Chester Road, Stretford, Lancashire.

Special Agents—B. G. LENNON & CO., London, and Port Elizabeth Cape Town, and East London, South Africa.

PRICE'S PATENT CANDLE COMPANY, LIMITED.

LONDON AND

LIVERPOOL



WM. BUSH, SON & CO.

Established over 40 years.
YORK STREET, WALWORTH, LONDON, S.E.
IMPORTERS OF ESSENTIAL OILS.
SAMPLES AND PRICE LIST ON APPLICATION.

MARIGOLDINE,

NEW COLOUR FOR BUTTER, CHEESE, &c.

After a lengthened investigation, the Proprietors are enabled to offer this novel preparation, representing the rich colour of the Marsh Marigold, in a highly concentrated form. Being a Vegetable Extract, it will be found to impart to Butter a beautiful golden colour, free from taste, possessing its natural odour, and as pure as the herbage on which the animal feeds.

It is well known that in the Spring or Summer the rich colour of Butter is derivable from the Marsh Marigold and Ragwort Buttercups of our pastures, and it has been the aim of the Proprietors to produce an article that will enable the dairyman to obtain uniformly the same results at all times of the year in the most agreeable form; and it is confidently believed that it will be found superior to every preparation hitherto sold for the purpose. It is perfect compatibility with oil and grease of every description, for watery compounds makes it useful for many other purposes in which it is desired to obtain a rich and delicate golden tint.

Sold by Chemists, &c., and Wholesale Houses.
W. B. Son & Co. solicit inquiries, and will be happy to furnish Samples and Prices at all times.

MAUBERT'S

GENUINE BROWN WINDSOR & HONEY SOAPS
ARE THE BEST AND MOST ECONOMICAL.

ALTHAEA

A NEW SOAP ALREADY IN GREAT DEMAND ON THE CONTINENT. PACKED IN ELEGANT GLOVE or HANDKERCHIEF BOXES, CONTAINING

12 TABLETS, weighing each about 5 oz., price 3/0 per box.
6 TABLETS, " " " price 1/9 per box.

WHOLESALE PRICES ON APPLICATION TO
6 LOVE LANE, ALDERMANBURY, E.C.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Szalehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

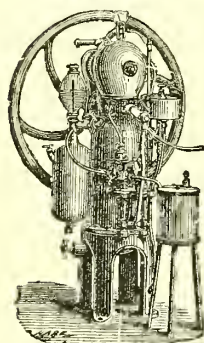
H. FAVARGER.

GOLD MEDAL]

MONDOLLOT'S PATENT

[PARIS, 1878.

SODA WATER MACHINERY.

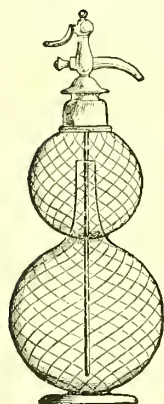


The "MEDIUM" is guaranteed to make extra sharp Soda Water, and the finest Lemonade, Ginger Beer, Ginger Ale, &c.
 The "MEDIUM" requires no skilled labour, and can be worked by hand or steam power.
 The "MEDIUM" saves 50 per cent. of materials over any other hand machine, and requires less power.
 The "MEDIUM" will last for years without repairs beyond the renewal of washers.
 The "MEDIUM" requires no gasometer, and occupies but a quarter of the room of an ordinary machine.
 The "MEDIUM" is automatic in all its work, and merely requires the wheel to be turned.
 The "MEDIUM" is of the finest workmanship, and is in use all over the world.

Apply for illustrated Catalogue to

H. FAVARGER, 75^C TURNMILL STREET, LONDON.

REDUCED PRICES.



FEVRE'S SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Caned, each	8/9	10/2	15/3	26/
	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Wired, each	8/3	9/9	14/6	24/6

£2 worth or more, 5 per cent. discount.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Temporary Address during Rebuilding of Premises—9 MOOR LANE, E.C.

Telegraphic Address—"MOAB LONDON."

W. MEADOWCROFT,

MANUFACTURER OF HIGHLY CONCENTRATED

SOLUBLE FRUIT ESSENCES

AND ALL OTHER REQUISITES FOR THE MANUFACTURE OF HIGH-CLASS AERATED WATERS.

Agent for Galloway's Soda Water Machinery and Hassall's Phospho-Citric Acid.

WRITE FOR PRICE LIST.

W. MEADOWCROFT, Old Bank Street, BLACKBURN, LANCASHIRE.

W. J. BUSH & CO.,

MANUFACTURING CHEMISTS.

DISTILLERS AND IMPORTERS OF

ESSENTIAL OILS AND FRUIT ESSENCES,

INVENTORS OF

SOLUBLE ESSENCES FOR AËRATED WATER
AND CORDIAL MANUFACTURERS.

FRENCH CREAM GUM EXTRACT,

PROTECTED BY ROYAL LETTERS PATENT,

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to Caution the Trade against spurious imitations of this article, most of which are mere rubbish.

W. J. BUSH & CO.'S

ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.

OL. AMYGD. ESSENT. ANG.

Sine Acid. Prussic.

OL. ANETHI ANG.

OL. CARUI ANG.

OL. CARYOPH. ANG.

OL. CUBEBAE ANG.

OL. COPAIBAE ANG.

OL. CINNAM. VER. ANG.

OL. MYRISTICÆ ANG.

OL. MENTH. PIP. MITCH.

OL. MENTH. PIP. MITCH.

RECT.

OL. PIMENTÆ ANG.

OL. PATCHOULI ANG.

OL. SASSAFRAS ANG.

OL. CORIANDRI ANG.

OL. SANTAL. FLAV. ANG.

OL. LIMONIS

OL. BERGAMOT

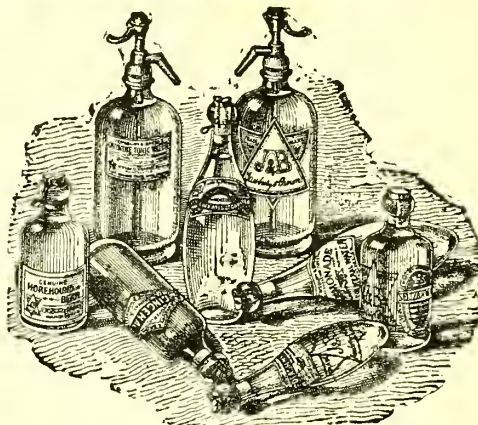
} W. J. BUSH & CO.'S SPECIALITY.

ARTILLERY LANE, BISHOPSGATE, LONDON.

JEWSBURY & BROWN'S (MANCHESTER) SPARKLING TABLE WATERS,

UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE
AERATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER.

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."

FRANCIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aerated Waters are of the highest standard of purity which is practically attainable."

LOUIS SIBBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but Citric Acid."

"I took a sample of the water used in your manufactory, in the preparation of the Aerated Waters, and found it, as was the case with the completed compounds entirely free from lead, copper, or any injurious matter whatever."

C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

VEGETABLE BUTTER COLOURING

(OF OUR OWN MANUFACTURE),

For imparting to the Butter at all seasons of the year that rich cowslip tint which is such a desideratum to all producers. It is rapidly superseding the Danish and all other makes, being more efficient and cheaper; it does not crust on the bottles, as the case with the foreign preparations; is free from Aniline, and does not colour the Buttermilk. To Purchasers of Bulk it affords a considerable source of profit, and is well worth the attention of Druggists in the agricultural districts. Price 1/2 per lb.; 1/ in 2-gallon Bottles. Special Terms to large consumers.

To meet the views of many of our friends, we have commenced to put this article up in bottles also, under the title and trade-mark of the "Silver Churn." It is very attractively got up, and will command a ready sale; the bottles contain more than either Danish or American, while the price to the retailer is lower than that of any other Butter Colouring in the Market. Price in Bottles, 6d. size, 4/ per doz.; 1/ size, 8/ per doz.; 2/ size, 16/ per doz. Less 10 per cent. discount.

A handsome Show Card, printed in colours, and suitable Counter Bills may be had on application.

Copy of Testimonial just received (May 18, 1886), from one of the largest Dairy interests in the country:—

"We have subjected your Silver Churn Butter Colouring to a protracted and severe trial, and it appears to us to be the very best article obtainable; the absence of any objectionable taste and smell, the beautiful straw colour imparted to the butter, as well as the very small quantity required, combining to render it both efficient and economical. We have found a teaspoonful sufficient for 24 quarts of cream at this season of the year. By continuing the manufacture of a quality equal to that you have supplied to us, you cannot fail to secure the good opinion and patronage of all users."

PROPRIETORS AND MANUFACTURERS—

OLDFIELD, PATTINSON & CO., WHOLESALE DRUGGISTS, 17 Todd St., Manchester.

May be ordered through any Wholesale House, or of our London Agent, B. SUART, 24 Queen Victoria St. (who holds Stock of all sizes); Liverpool Agents, AYRTON & SAUNDERS, Duke St.

ONLY PRIZE MEDAL,

**READ**

THE FOLLOWING SELECTIONS FROM

OVER 300 TESTIMONIALS

RECEIVED FROM

HIGHEST PRIZE MEDAL



BRADFORD, 1882.

MEDICAL MEN, CHEMISTS, and HOSPITALS respecting the Waters manufactured by
THE CHEMISTS' AERATED & MINERAL WATERS ASSOCIATION, LTD.

From J. THOMPSON, Esq. (Messrs. MAW, SON & THOMPSON),
 7 to 12 Aldersgate Street, London, E.C.

Both the Soda and the Potash Water are in my opinion excellent.
 Signed, J. THOMPSON.

From J. CAMERON, Esq., M.D., &c., Medical Officer of Health, Hendon, N.W.
 Dear Sir,—Having used and examined the waters prepared by the Chemists' Aerated and Mineral Waters Company, I am of opinion that they are of pure quality, well charged with gas, and, being prepared according to the formula of the British Pharmacopœia, they contain a fixed quantity of various salts, which are useful in the treatment of disease.

I am, dear Sir, yours truly,

Signed, JAMES CAMERON, M.D., &c.

From A. S. THORBURN, Esq., M.D., L.R.C.S., 7 Catherine St., Strand, W.C.
 To the Secretary.

Dear Sir,—I have used your waters for some years, and am so perfectly satisfied with the quality, purity, and aëration, that I recommend them with confidence to my patients. I think that your system of making waters up to strength as prescribed by the British Pharmacopœia and stating that fact on bottles, &c., is an excellent one, and one that I have not noticed elsewhere. (Signed) A. S. THORBURN, M.D., L.R.C.S.

From ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN,
 Leicester Square, W.C., and Markham Square, S.W.

Dear Sir,—I have much pleasure in answering your question as to the feeling that has been expressed by the authorities of this hospital in reference to the mineral waters supplied by the Chemists' Aerated Waters Association. Allow me to state that we have now used your Association's waters for a considerable time and we have invariably found them as good as good could be; I have not once had any complaint as to them—on the contrary.

Yours truly,

Signed, ST. VINCENT MERCIER, Secretary.

From the NORTH LONDON CONSUMPTION HOSPITAL, Mount Vernon,
 Hampstead.

Dear Sir,—I have much pleasure in saying that the aerated waters supplied by your Association to the North London Consumption Hospital for several years were very good in quality and purity.

Yours faithfully,

Signed, W. HORNIBROOK, Secretary.

CONSULTING CHEMIST TO THE ASSOCIATION,

WILLIAM FOSTER, M.A. (Camb.), F.C.S., Fellow of the Institute of Chemistry, Professor of Chemistry at the Middlesex Hospital, &c., &c.

CHEMISTS' AERATED & MINERAL WATERS ASSOCIATION, LTD.,
LONDON. BRISTOL. HARROGATE.

By Special Appointment to

H.R.H. the Duke of Connaught and the Royal Family



BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,

BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
 LEMONADE, AND AROMATIC GINGER ALE.

12 dozen and 6-dozen Cases Carriage Paid.

Prices and Pamphlet on application. Agents appointed.

CARBOLICA

the Best and Cheapest NON-POISONOUS DISINFECTANT.
 CARBOLICA POWDER is put up in large and small tins and packets; also in bags and casks.
 CARBOLICA FLUIDS can be had in stoppered bottles of all sizes also in drums and casks.

CARBOLIC ACID, 95 per cent.—CARBOLATED CREOSOTE—CHLORIDE OF LIME, &c., &c.

ALL GOODS produced in BEST STYLE at LOWEST PRICES.

Special Quotations to shippers and large buyers.

Wholesale Price List apply to the CHEAPEST HOUSE in the TRADE.

HAMILTON & CO., 418 High St., Wandsworth, London, S.W.

3 GOLD MEDALS

AWARDED FOR

2

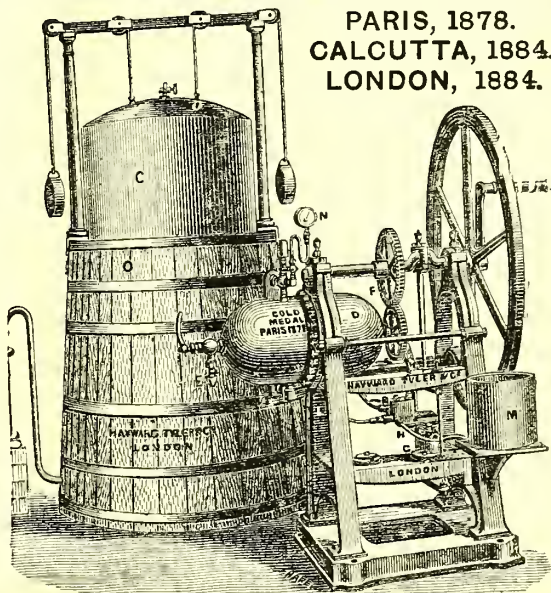
SODA WATER MACHINERY.

HAYWARD TYLER & CO.,

PARIS, 1878.

CALCUTTA, 1884.

LONDON, 1884.



84, 85 WHITECROSS STREET, LONDON.

WAX PAPER! WAX PAPER!

BEST AND STRONGEST MANUFACTURED.

MANUFACTURING CONFECTIONERS,
BLACKING MAKERS,
WHOLESALE DRUGGISTS, &c., &c.,
Supplied with Waxed Paper free from smell and taste,
cut to any size at the lowest possible price.

G. C. WALL & CO.,
115 KENNINGTON PARK ROAD
LONDON, S.E.

WAX PAPER! WAX PAPER!**Oiled Paper! Oiled Paper!**

MANUFACTURING CONFECTIONERS
BLACKING MAKERS,
WHOLESALE DRUGGISTS, &c., &c.,
Supplied with Waxed and Oiled Papers, cut to any size and
printed to any design, at the lowest possible price.

THE PARCHMENT & WAX PAPER CO.
(The Original Makers),
Debnams Road, South Bermondsey Station,
LONDON.

LESCHER'S**RECENT****MATERIA MEDICA.**

By F. HARWOOD LESCHER, F.C.S., &c.

The First Edition of the Work contains, in a condensed form, all known information upon Recent Materia Medica. It will prove of the greatest value to the Chemist or Practitioner, as the whole of the matter is conveyed in a clear and well digested form. The book also contains an excellent Therapeutic Index, so that the diseases for which the new remedies may be used are seen at a glance.

Price, 2s. 6d.; Post free, 2s. 8d.

TO BE HAD FROM

EVANS, LESCHER & WEBB,
LONDON.

EVANS, SONS & CO.,
LIVERPOOL.

AND THE PUBLISHERS:

J. & A. CHURCHILL, 11 New Burlington St., W

PHOTOGRAPHY.**ALL CHEMICALS USED IN PHOTOGRAPHY,**

DRY PLATES, NEGATIVE VARNISHES, COLLODION, APPARATUS, LENSES,
ALBUMENISED AND SENSITISED PAPERS,

CAN BE PURCHASED AT WHOLESALE RATES IN THE SMALLEST QUANTITIES FROM

R. W. THOMAS & CO., 10 PALL MALL, LONDON, S.W.

Who are prepared to give instruction in the art of Photography FREE OF CHARGE, and every information to Chemists
who propose to lay themselves open to do a trade in Photographic Requisites with Amateurs, Professionals, &c.

PRICE LISTS POST FREE.

Complete Sets of Apparatus from £2 2s. to 30 Guineas.

BEWARE OF THE PARTY OFFERING IMITATIONS OF

MACNIVEN & CAMERON'S PENS.

"They come as a boon and a blessing to men,
The Pickwick, the Owl, and the Waverley Pen."

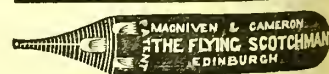
THE "BIG J" PEN.




2231 Newspapers recommend them.
"They are a treasure."—Standard.

SOLD**EVERYWHERE.**

THE "FLYING SCOTCHMAN" PEN.



"They eclipse all others."—Globe.

 Specimen Box, containing all the kinds, by post, 1s. 1d.

MACNIVEN & CAMERON,

Penmakers to Her Majesty's Government Offices,

23 to 33 BLAIR STREET, EDINBURGH. (Estd. 1770.)

146, MINORIES LONDON, E.C.
New York
Sydney

SODA WATER MACHINERY
AND ALL ACCESSORIES FOR THE TRADE

BRATBY & HINCHLIFFE

HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER.

BOXES BOTTLES MACHINERY.
ESSENCES
Catalogues Circulars Testimonials
Post Free

J. DUNLOP MITCHELL & CO.

Office and Show Rooms: 130 to 136 INGRAM STREET, GLASGOW.

THE BEST & HANDSOMEST WATER FILTERS EVER MADE.

No one should drink unfiltered water. It is an acknowledged fact that nearly all our illnesses originate by drinking impure water. No house or establishment should be without one or more of our new "Mountain Dew" or "Rippling Rill" (Registered) Water Filters, entirely made of glass, in 1 and 2 gallons capacity.

FEEDING BOTTLES—Tinted, 24/ per gross; White Glass, 26/6.

BOTTLES of every description of shape and size, panelled and plain, stoppered and not, also with and without white metal screw tops, at lowest prices. Show and specimen Bottles, Glasses, and Jars in great variety; also Laboratory Glassware. Show and Stock Bottles and Barrels, after the style of Illustrations, in White Glass $\frac{1}{2}$, 1, 2, 3, and 4 gallons capacity, fitted with glass stoppers and silvered tips.

Perfect Security by Post and Rail. Corrugated paper-lined Boxes made any size, and fitted for one or more bottles. Also Wooden Post Boxes.

SPECIALTIES.

Illustrations, Samples, and Prices on application.

Correspondence solicited.

AGENTS WANTED in the Colonies and Abroad.



DOULTON & CO., LAMBETH, LONDON, S.E.

MANUFACTURERS OF EVERY DESCRIPTION OF

WATER FILTERS.

NEW PATENT

Manganous Carbon FILTERS.
Boudoir and Table FILTERS.
Pocket and Syphon FILTERS.

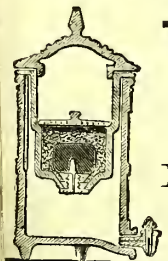
House Supply or Cistern FILTERS.
Patent Granular Charcoal FILTERS.
Refrigerator FILTERS.

MAIN SERVICE FILTERS

FOR INTERMITTENT OR CONSTANT SUPPLY.

See Reports, Analyses, &c. Detailed Lists on application.

To be obtained of all Dealers.



DOULTON & CO., LAMBETH, LONDON, S.E.

DEPOTS:—100 Soho Street, LIVERPOOL; Granville Wharf, BIRMINGHAM; and 6 Rue de Paradis, PARIS.

CHEMISTS' MACHINERY.

PILL MASS KNEADING MACHINES.

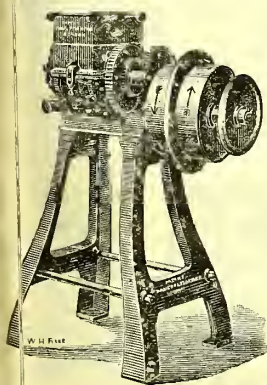
PILL MAKING MACHINES.

DRUG GRINDING MACHINES.

SIFTING MACHINES.

FULL PARTICULARS OF ABOVE ON APPLICATION TO

WERNER & PFLEIDERER, 86 Upper Ground St., LONDON, S.E.
Blackfriars Bridge,



KEENE & ASHWELL'S

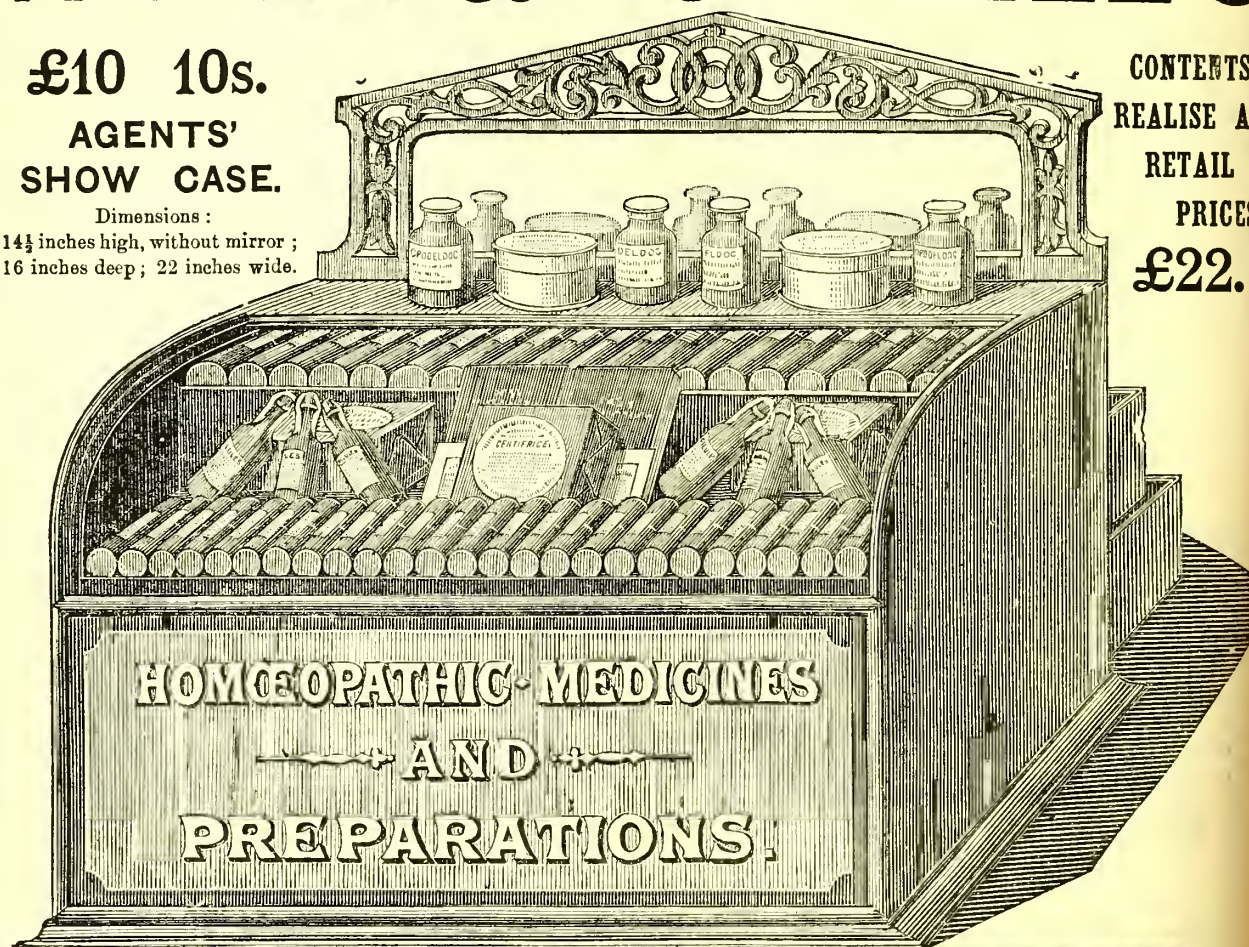
£10 10s.

AGENTS'
SHOW CASE.

Dimensions :

14½ inches high, without mirror ;
16 inches deep ; 22 inches wide.

CONTENTS
REALISE AT
RETAIL
PRICES,
£22.

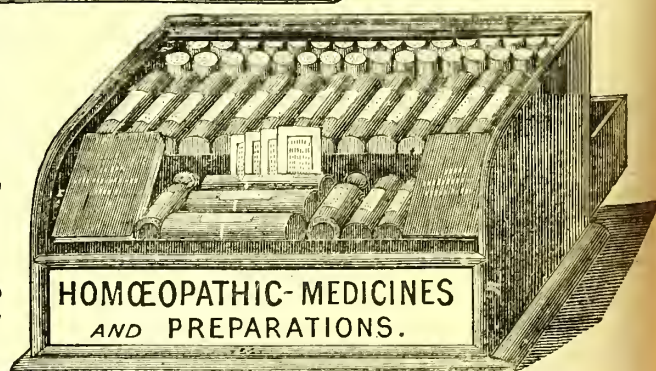


50/- AGENT'S SHOW CASE.

CONTENTS REALISE AT
RETAIL PRICES **105/-**

Size of 50s. Case, 16 × 10½ × 8.

This is the cheapest and best Homœopathic Show Case in the trade, and the only one with bent glass for the money. A list of others on application.



Homœopathic Medicines supplied in Bulk, and with Keene & Ashwell's "Companion to the Homœopathic Pharmacopœias," Chemists may be their own manufacturers. The "Companion," post free, 3/6, and Price Lists on application.

1/- SIZE, **CAMPBOR PILULES** 3/9 Per doz.
1 oz.

FIND A READY SALE EVERYWHERE.

DEPÔT AND LABORATORY, **74 NEW BOND STREET.**
LONDON.

SUPPLEMENT TO THE CHEMIST & DRUGGIST

For the ADVERTISEMENT of

Businesses for Disposal, Employers Wanting Assistants, Assistants Wanting Situations, Partnerships, Premises to Let, Sales by Auction, &c.,

AND

EXCHANGE COLUMN FOR DISPOSAL OF SURPLUS STOCK, ETC.

Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until 5 p.m. on Thursday afternoon, or by first post on Friday morning of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

TERMS—Businesses for Disposal, Employers wanting Assistants, Partnerships, Businesses to Let, Sales by Auction, 5 lines (fifty words) and under, 3s. 6d.
Assistants wanting Situations, 12 words for 1s.; every additional 3, 4, or 6 words, 6d.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C., CHEMISTS' TRANSFER AGENTS.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION. Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

Particulars of any of the following will be sent free on application:—

1. LONDON, CITY.—Good-class Business for immediate disposal; with some Wholesale attached; returns nearly £3,000, full prices for everything; large handsome shop; about £1,700 required. Full particulars on receipt of business card or London reference.

2. KENT.—Unopposed Business of good class; returns nearly £500, profits good; single-fronted, well-fitted shop, and good stock; good house, attractive garden; price £450.

3. LONDON, S.W.—Good Family Retail and Prescribing Business; returns last year nearly £900; net profits over £400; well fitted shop and good stock; 8-roomed house, rent low; price £750.

4. SUFFOLK.—Good Country Business, situate in the centre of good business locality; returns last year amounted to £1,100; rent very low; price about £700.

5. WALES, SOUTH (Seaside).—Good-class Business in first-rate commercial town; returns last year £750; must be sold in consequence of death of proprietor; easy terms.

6. LONDON, S.E.—Good General, Retail, and Dispensing Business; returns nearly £550, increasing; well-fitted shop and good stock; price £450.

7. KENT.—Good market town; Retail and Dispensing, with a large sale of proprietary articles; returns nearly £800; good house, well situated price about £650.

8. EASTERN COUNTIES.—Good-class Retail and Agricultural Business; returns average over £900 yearly, with good profits; good house, attractive garden, fruit trees, &c.; price £750.

N.B.—No CHARGE TO PURCHASERS. Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free. Terms for Valuation on application. **ORRIDGE & CO.**

THE BRITISH AND COLONIAL PHARMACEUTICAL AGENCY FOR THE SALE AND TRANSFER OF CHEMISTS' BUSINESSES, the Negotiation of Partnerships, &c., Investigations, Valuations, Insurances, Accountancy, Recovery of Debts, Inquiries, Locum Tenens, and Assistants. Prospectus, with terms, free by post or on application. Address, the Secretary, 27 Margaret Street, Cavendish Square, London, W.

SALE BY AUCTION.

FOR PUBLIC SALE, AT THE LONDON COMMERCIAL SALE ROOMS, MINCING LANE, E.C., 17TH AUGUST, 1886.

COCOA BUTTER. 10 Tons "Cadbury's."

Guaranteed Genuine.

C., M. & C. WOODHOUSE,

30 Mincing Lane, London, E.C.

PARTNERSHIP.

PARTNER wanted, in a good paying business in the East; must have passed examination as pharmacist, and be capable of conducting a chemist's business in all its branches; one who understands manufacturing aerated waters preferred; about £800 required. Address, "Orient," care of Law, Son & Thompson, London.

BUSINESSES FOR DISPOSAL.

IN MIDDLESEX.—A genuine ready-money Retail and Prescribing Business with Tea Agency; good opportunity for a beginner or one with small capital; returns have been doubled by present proprietor in 6 years; house and shop small, but central; district healthy and pleasant; rent £35; lease can be had; last year's returns over £800, £500 for drugs, £300 for tea; cash price £350, worth £500. "Chemicus," 20 High Street, Uxbridge.

CHESHIRE.—Light Country Retail, Dispensing, and Prescribing; pleasant good-class town; very low rent; returns £800; price £500; full prices; month's trial given. F. J. Brett, Valuer, Leicester.

LANCASHIRE.—In good town, Dispensing and Light Retail; excellent position; fine double-fronted shop and convenient house; returns for three years average £1,000; at valuation of stock and fixtures. F. J. Brett, Valuer, Leicester.

DEVON.—The business of the late Mr. James Page, South Molton, Devon, is offered for immediate transfer; for many years a profitable Chemist and Wine and Spirit Business was carried on by the late proprietor. Apply to Messrs. Orridge & Co., 32 Ludgate Hill, London, E.C.; or Messrs. Evans, Gadd & Co., Exeter.

A GOOD-CLASS Retail, Dispensing, and Agricultural Business, with valuable agency attached; best position in one of the best market and manufacturing towns in the North of England; splendid opportunity for intelligent business man with capital; satisfactory reasons for disposal. Apply, Fitzroy, care of Bleasdale, Bell & Co., York.

HULL.—Owing to the death of the proprietor, a profitable Dispensing and Prescribing Business in one of the best streets; established 80 years; average returns about £800; a rare opportunity for an energetic business man. Apply, F. Earle, Chemist, Market Place, Hull.

NEAR BIRMINGHAM.—Old-established Mixed Retail; under exceptional circumstances; thickly populated neighbourhood; well-fitted corner; good house, side entrance; rent £50; five years' lease; returns £350, would soon double, being badly managed; £150, or valuation; easy terms, instalments; an opportunity seldom offered. "Chemist," care of Wyleys, Coventry.

LONDON, N.—A Light Retail Business; returns over £250, could be doubled under proper management; satisfactory reasons given for disposing; part of purchase-money can remain if wished. For particulars address "Menthol," THE CHEMIST AND DRUGGIST, 42 Cannon Street.

NEAR LIVERPOOL.—Dispensing and light Retail Business for sale in rapidly increasing neighbourhood; good house; pleasant situation; near to beach; a first-class opportunity for one with small capital; good opening for Dentistry. Address, "Branch," Evans, Sons & Co., Hanover Street, Liverpool.

CHESHIRE.—Light Retail Drug Business with Branch for disposal; in good market town; returns at principal shop, £500, with agencies worth £25 per annum. Apply, with business card, to Richard Tomlinson & Sons, Druggists' Shop Fitters and Valuers, Bond Street, Birmingham.

BUSINESS, Retail and Dispensing; in new neighbourhood; established 5 years; returns £650; large profit; price £500; well stocked and fitted; owner ordered to live at seaside; every investigation allowed. Apply, 78 Chatsworth Road, Clapton, E.

LANCASHIRE.—In small manufacturing town, an unopposed Retail, Dispensing, and Prescribing trade, returning £550 yearly; nett profits (including agency) £300; the serious illness of proprietor compels him to make a great sacrifice; price £250. Apply, Mr. G. B. Crocker, Transfer Agent, 15 Walbrook, E.C.

EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

IMMEDIATELY.—An Assistant, to take charge in the absence of principal. Apply, A. Ball, High Street, Loughborough.

FOR CHINA, an Assistant from 22 to 25 years of age; a good Dispenser; preference given to one who has had experience in a good London house. Apply by letter, with full particulars, to A. B., care of Hearon & Co., 5 Coleman Street, London, E.C.

LIVERPOOL DISPENSARIES.—Wanted, a Dispenser for the East Dispensary. He must be a duly registered Pharmaceutical Chemist, and will be required to live off the premises; hours of duty, ordinarily, from 9 A.M. to 5 P.M.; age not to exceed 40 years; salary 2l. 2s. per week. Applications and testimonials, stating age and experience, to be forwarded to the undersigned not later than Tuesday, 17th instant.

By order of the Committee,
Leith Offices, Moorfields, R. R. GREENE, Secretary.
Liverpool.

A COMPETENT ASSISTANT, unmarried, required to take charge of branch. Send references and particulars (with carte if convenient), and salary required, to W. T. Maddock, Pulborough. No Sunday work.

WHOLESALE WAREHOUSEMAN wanted; age not under 26; capable of making the ordinary B.P. Preparations and superintending the despatch of goods. Address, Bradley & Bliss, Wholesale Druggists, Reading.

WANTED IMMEDIATELY, a Junior; must be quick and obliging. State reference, when disengaged, and wages required, outdoors, to J. H. Blunt, 46 Drapery, Northampton.

WANTED, by the end of the month, a good Junior; business principally Dispensing. Apply, &c., J. T. Chandler, 39 High Street, Margate.

A QUALIFIED ASSISTANT, competent to manage a mixed country business for a widow; a total abstainer indispensable; able to speak Welsh; duties light; single man preferred; place situated in healthy picturesque district; send full particulars and enclose photo to D., Barron & Squire, Bush Lane, Cannon Street, London.

ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

EMPLOYMENT WANTED.—Applicant has passed University Examinations in Chemistry and Botany, and has a certificate of having attended a class of practical Pharmacy. P. P. J., Tamerton House, Lee, Kent.

NEW ZEALAND OR CANADA.—Wanted, by a qualified English Chemist, a situation in a Drug Store as Manager, or Head Assistant; can give first-class references as to character and ability. Replies to be addressed, "X 42, New Zealand," care of the Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMPROVER; good dispensing experience; can extract teeth; aged 20. White, Thorn, Kenilworth.

AGENCY to travel in Scotland for Wholesale House wanted by advertiser, who has occasion to travel on other business, and time not fully occupied; knowledge of Drug trade. Apply, W. M. Morgan, Bernard Street, Leith.

DISPENSER.—Wanted, the post of Dispenser at an institution or otherwise; permanent; first-class testimonials and hospital experience. Particulars of "H₂O," 3 and 4 Hill House Buildings, Llanstephan, Carmarthen.

AS ASSISTANT; aged 24; 9 years' experience; first-class references; Minor; outdoor. J. N., 9 Riding Street, Southport.

AS TRAVELLER, to push sale of specialties. Address "Energetic," 27 Union Street, Ryde.

ASSISTANT or Manager; good experience. A., 13½ York Street, South Stockport.

NEW ZEALAND, Tasmania, or Cape Colony; experienced Assistant (Scotsman, aged 25) wants situation; first-class testimonials. Chaleners, Chemist, Greenock.

AS BRANCH MANAGER; many years' experience; disengaged. Jones, Chemist, Briton Ferry, Glam.

AS MANAGER of Branch or outdoor Assistant; married; thoroughly competent. Apply, with particulars, Lindsmere, Westfields, Newbury.

JUNIOR; permanency; indoors preferred; speaks French and Italian fluently; good experience; first-class references; abstainer; disengaged August 20. Gaziello, 7 Railway Street, Chatham.

APPRENTICESHIP.

A VACANCY occurs in a first-class dispensing and light retail business for a well-educated Youth as an Apprentice; must have passed the Preliminary Examination; situation one of the healthiest on the English coast. For further particulars apply to Julian Horrell, M.P.S., Pharmaceutica Chemist, Broadstairs, Isle of Thanet.

MISCELLANEOUS.

TO THOSE IN THE SPECTACLE BUSINESS.—Thorough instruction given privately on the suiting of Spectacles for every kind of sight, including astigmatism, by a Specialist on vision; simple and new method; knowledge imparted in a few easy lessons; enabling those who trade in spectacles to develop their business at a higher rate of profit without increasing their existing stock, besides raising them above ordinary trade competition. For interview, apply by letter to "Oculus," Box 2,827, Sell's Advertising Offices, 167 Fleet Street, E.C.

A WELL-INTRODUCED, energetic Agent, for 20 years engaged in the Chemical and Drysaltery trade, is open to an Agency for the Sale (on commission) in Elberfeld-Barmen, or a more extended district, of refined Naphthaline, Sal-ammoniac, Gambier, Benzol, Tolucl, Anthracen, and other similar goods; first-class references. Please address, A., 2/500, care of Rudolf Mosse, Cologne-on-the-Rhine, Germany.

TO PHARMACEUTICAL STUDENTS.—Fresh Specimens of *Hyoscyamus niger* (annual) and *Atropa belladonna* sent post free for 12 stamps. Address, W. T. Wildey, Shustoke, near Coleshill, Birmingham.

ADVERTISER, calling upon Wholesale and best Retail Chemists, Druggists, and Drysalters in Six Northern Counties, would be glad to hear of other speciality. Address, "Speciality," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PRELIMINARY & MINOR.

ALL STUDENTS who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 38 Pupils passed the last Examinations.

AN ESTABLISHED NEW YORK COMMISSION AGENCY,

Representing well-known English Manufacturing Chemists, and now doing an extensive business with the Wholesale Drug Trade of America, can introduce Specialties to advantage; highest references; correspondence solicited.

Address—FRANCIS J. MACNAUGHTAN, 20 Cedar Street, New York City, U.S.A.

EXCHANGE COLUMN.

FOR DISPOSAL.

Proprietary Articles.

20 oz. Persian opium, highest offer. 20/39.

Few dozens 2s. 9d. Cockle's and Scott's pills; 36, 3s. 6d. Rowland's macassar oil; cash offers. 20/37.

Educational.

"Squire's Companion," 13th edition, 3s. 6d. Apply, E. Coates, 21 Duke Street, Edinburgh.

"Ure's Dictionary," new, four volumes, 7l. 7s.; what offers, cash or exchange?—good tri-cycle wanted. Walker, Seacombe.

Cassell's "Family Physician," 4 vols., subscription edition; what offers? A. W. Taylor, Albion House, Rawtenstall, Manchester.

Squire's "Companion," 11th edition, 3s.; Beasley's "Pocket Formulary," 2s. 3d.; Stewart's "Physics," new, 2s. 3d.; Holmes's "Botanical Note-book," new, 1s. 9d. "Alpha," 19 Moor Street, Cheltenham.

"How to prepare for Minor and Major at Home," 2s. 6d. stamps; complete sets materia-medica specimens, 5s. stamps. F. C. S., 14 Vine Place, Sunderland.

Southall's materia, in good cabinet, with 13 drawers and panelled doors, worth 70s., sell for 40s., or reasonable cash offer; also capital magnetoelectric machine, very cheap. Tovey, 389 High Street, Cheltenham.

Shop Fittings.

Fixtures, suitable for anyone starting in business, including drawers, carboys, counter, shelving, &c. Apply to J. H., 112 Park Street, Grosvenor Square, London, W.

Several second hand nests shop drawers: 1-lb blue canopy ointment jars, 8d. each; 2-lb. ditto, 1s. 3d. each; 3-lb. ditto, 1s. 9d. each; 4-lb. ditto, 2s. 3d. each; quantity new stoppered shop bottles, 3s. 6d. doz.; 4 engraved acid bottles, 4s.; 4-gallon iron mortar, 15s.; pair 4-lb. French counter scales, 15s. 6d.; 10-lb. ditto, 18s.; 4-lb. marble top ditto, 17s.; 4-oz verified measures, 10s. doz.; new pill machine, 16s.; No. 10 composition mortar and pestle, 7s.; 16-oz. blue plug syrup bottles, 9d. each; 30-oz. ditto, 10d. each; several curved counter glass cases, from 1l. 10s.; various show globes and specie jars; glass sponge, &c., jars, with crown-shape lids. Simcock, Guildford Street, Leeds.

The complete fittings (part new) of shop, 14 by 15 ft., including range of mahogany drawers, with lockers and cupboard, shelving and cornice over, return shelving for back of shop, serving counter and return ditto, dispensing screen (with mirror and marble slab in centre), desk and glass case, 3 ft. bent front case, window enclosure to measure (with gas-fittings), three 4 gal. carboys and stands, 4l. 10s.; 12 ft. range new mahogany drawers, with bevelled glass labels and crystal knobs, 10l. 10s.; 12 ft. range new pine drawers, stained mahogany and French polished, bevelled glass labels and glass knobs, 8l.; 6 ft. mahogany dispensing screen, with mirror and marble slab in centre, 7l.; a set of new stoppered rounds, and ointment and pill jars, sufficient for a shop, 11l. 5s.; bent front show case, Maw's A 15, 4 ft. 6 in., second-hand, 55s.; 3 6-gallon carboys, cut stoppers, 15s. each; 4 4-gallon ditto, 11s. each; 12 1-quart blue syrup bottles, 12s. lot; 60 stoppered rounds, newly gold labelled, 57s.; 1 dozen 3-lb. blue jars, gold labelled, 22s. Illustrated lists free. R. Tomlinson & Sons, Medical Fitters, Bond Street, Birmingham (late St. Paul's Square).

Formulæ.

Seasonable Proprietarys, wanted daily.—"Mollispena," for tender feet; "Red Rose Lotion," invaluable at seaside; "Glycerine Cream," resembles Beetham's; "Perspiration Powder," effective without danger; "Efferescent Saline," like Euc's, costs 10d. lb.; "Diarrhoea Mixture," pronounced infallible; "Diarrhoea Powders," indispensable to tourists; "Custard Powder," like Bird's; delicious "Blanchange Powder," economical and tasty; "Bengal Chutney," makes cold meat enjoyable; "Ginger-beer Powder," unexcelled; 3d. packets "Lemonade Powder," cooling, refreshing, cheap; "Syrup Lemons," new form, delicate flavour; "Herb Ale," non-alcoholic, sparkling; "Bark Beer," true temperance potation; "Cold Cream"; "Toilet Vinegar"; "Eau de Cologne"; "Hair-washes," &c. Recipes 1s. 1d. each, 6 for 5s., free, with full directions; send for list of 300. Tom Brooks, Chemist, Louth, Lincs.

Formula of Danish butter colouring, prepared with oil, easy to make, 2s. 7d.; a farmer's wife writes: "Send a dozen butter colouring. I let Mrs. Clifton have a bottle; she took first prize at the Long Sutton Christmas Show for her butter coloured with it, the colour was so much admired; perfect as a colouring for pomades. Huggins, Chemist, Wainfleet, Lincs.

Miscellaneous.

Three £1 shares in Chemists' Aërated Society; what offers? 21/11.

Pigeons, pair healthy, pure fantails or jacobins, £1 1s. per pair, or offers. 21/26.

Surplus drugs and patents for sale or exchange. Send for price list to Watson, Chemist, Shipley.

Halse's medical galvanic battery, in good working order; sell cheap. H. Westell, Fore Street, Bridgewater.

17 lbs. of mercury for 1l. 10s.; 10 large Bunsen cells, 2l.; zinc and carbon plates for sale, quite new, zinc amalgamated; 12 lbs. crushed graphite. Address, Mr. Viccars, Public College, Torquay.

Glass Bottles.—About 8 gross pale-green tinted 3-oz. round pomades, screw nickel capped, 12s. per gross; 4 gross 14-oz. round-shouldered vials, white, best quality; several other lines equally cheap. Hearn, Riddell, Kingsland Road, London.

New quarter-plate swing-back rising-front camera, landscape lens, tripod stand, two double and one single dark slides, two ebonite dishes, ruby lamp, two printing frames; the whole for 50s. Wright, Chemist, Hadleigh, Suffolk.

WANTED.

A tincture press. Price to Doubleday, Dorking. Sutherland's rheumatism, 2s. 9d. Harvey, Margate.

Dental pedestal spittoon in good condition, cheap. Address, Parkins, Chemist, Salford. Gilded mortar and pestle in good condition, with bracket, for shop front; must be cheap. Frosser, Chemist, Gateshead.

Latest editions, Atfield's "Chemistry," "Selecta e Prescriptis," Will's "Materia Medica," Will's "Pharmacy," Whitt's "Pharmacy"; state condition. Pennington, Chemist, Bury, Lancs.

TELEPHONE No. 1852.

PUBLISHED EVERY SATURDAY, AT THE OFFICES, 42 CANNON STREET LONDON, E.C.

AUSTRALIA—Normanby Chambers, Melbourne. **UNITED STATES**—41 Temple Court, New York.

Exchange Column.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system :—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

[illegible]

Remittances payable to EDWARD HALSE, at the G.P.O., London, and crossed MARTIN & Co.

If you have no surplus stock to Advertise just now, keep this Page for future use.

Subscription Rate: 10s. per Annum, 52 Weekly Numbers and Diary, all Post-free. Single Copies of "THE CHEMIST AND DRUGGIST," 4d. each.